

# STIC Search Report Biotech-Chem Library

## STIC Database Tracking Number: 118897

TO: Tamthom Troung Location: rem/5b19/5c18

Art Unit: 1624

Search Notes

Monday, April 12, 2004

Case Serial Number: 10/088854

From: Alex Waclawiw

**Location: Biotech-Chem Library** 

**Rem 1A71** 

Phone: 272-2534

Alexandra.waclawiw@uspto.gov

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Page 1 of 2

1188



Resources

**Dominos** 

Scientific and Technical Information Center

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TC 1600	☐ TC 1700
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C TC 2100

O TC 2600

C TC 2800

C TC 3600

**Tech Center:** 

O TC 3700

O Design2900 C Other

#### **Enter your Contact Information below:**

Name: TRUONG, TAMTHOM (a.k.a. TAM)

Employee Number: 74142

Phone: x 20676

Art Unit or Office: 1624 Building & Room Number: REM 5B19

Enter the case serial number (Required): 10/088,854

If not related to a patent application, please enter NA here.

Class / Subclass(es) 544/284, 287, 293; 514/266.2, 266.3, 20

Earliest Priority Filing Date: MARCH, 2002

#### Format preferred for results:

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### Provide detailed information on your search topic:

- In your own words, describe in detail the concepts or subjects you want us to search.
- Include synonyms, keywords, and acronyms. Define terms that have special meanings.
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- \*For Sequence Searches Only\* Include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

 \*For Foreign Patent Family Searches Only\* Include the country name and patent number.

Provide examples or give us relevant citations, authors, etc., if known.

• FAX or send the abstract, pertinent claims (not all of the claims), drawings, or chemical structures to your EIC or branch library.

Ente	r your Sear	ch Topic	Informa	tion b	elow:							
SEE	ATTACHED	CLAIMS	1, 11	AND	12.							
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Press ALT + F, then P to print this screen for your own information.



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Last Modified: 04/06/2004 12:14:41

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	(FILE	'REGISTRY' ENTERED AT 11:29:20 ON 12 APR 2004) DEL HIS Y ACT TROUNG/A
L1		STR
L2		6472 SEA FILE=REGISTRY SSS FUL L1
		ACT TROUNG2/A
L3		STR
L4	(	6472)SEA FILE=REGISTRY SSS FUL L3
L5		STR
L6		624 SEA FILE=REGISTRY SUB=L4 SSS FUL L5
L7		STR L5
L8		489 SEARCH L7 SSS SUB=L2 FUL SAVE L8 TEMP TROUNG3/A
L9		135 S L6 NOT L8
	FILE	'CAPLUS' ENTERED AT 11:34:23 ON 12 APR 2004
L10	FILE	'REGISTRY' ENTERED AT 11:34:30 ON 12 APR 2004 13 S L2 AND NC5-C6/ES
	FILE	'CAPLUS' ENTERED AT 11:34:42 ON 12 APR 2004
L11		10 S L10
L12		23 S L9

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

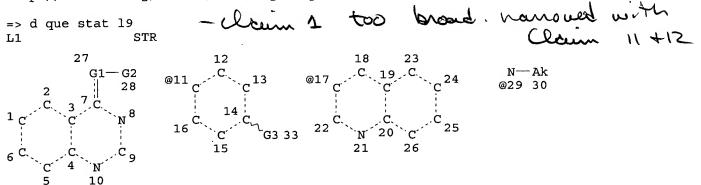
STRUCTURE FILE UPDATES: 9 APR 2004 HIGHEST RN 673855-15-7 DICTIONARY FILE UPDATES: 9 APR 2004 HIGHEST RN 673855-15-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html



0√Ak @31 32

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VAR G2=11/17
VAR G3=X/N/31/HY/O/S
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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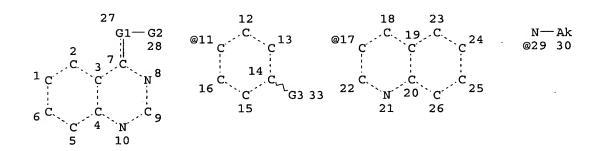
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NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

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L3 STR



O-∕Ak @31 32

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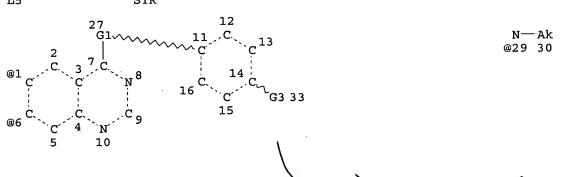
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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@34 35

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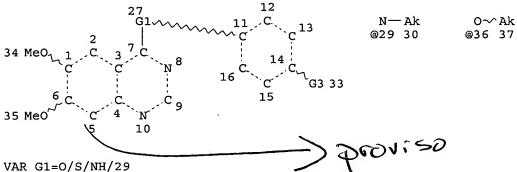
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NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

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L7



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**GRAPH ATTRIBUTES:** 

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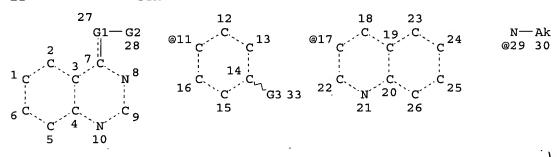
NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

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L9 135 SEA FILE=REGISTRY ABB=ON PLU=ON L6 NOT L8

=> d que stat 110 STR L1



O-√Ak @31 32

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**GRAPH ATTRIBUTES:** 

RSPEC I

NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L2 6472 SEA FILE=REGISTRY SSS FUL L1

L10 13 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND NC5-C6/ES

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FILE COVERS 1907 - 12 Apr 2004 VOL 140 ISS 16 FILE LAST UPDATED: 11 Apr 2004 (20040411/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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L10
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L4
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L8
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L12
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#### => d .ca hitstr l11 1-10

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L11 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
```

ACCESSION NUMBER: 2004:120821 CAPLUS

DOCUMENT NUMBER: 140:163886

TITLE: Preparation of 4-anilino substituted quinazolines as inhibitors of epidermal growth factor receptor kinases

INVENTOR(S): Gazit, Aviv; Levitzki, Alexander

PATENT ASSIGNEE(S): Yissum Research Development Company of the Hebrew

University of Jerusalem, Israel

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.	KINI	D DATE			A)	PPLI	CATIO	ON NO	<b>)</b> . ]	DATE			
	<b></b>					-						<b>-</b>		
WO 2004	013091	A2	2004	0212		W	200	03-II	632	:	2003	0731		
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	CO, CR,	CU, (	CZ, DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
	GM, HR,	HU,	ID, IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
	LS, LT,	LU, 1	LV, MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
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	TR, TT,	TZ, U	UA, UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,
	KG, KZ,	MD, I	RU											
RW:	GH, GM,	KE, I	LS, MW,	ΜZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	ΑT,	ΒE,	ВG,
	CH, CY,	CZ, I	DE, DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,
	NL, PT,	RO, S	SE, SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,
	GW, ML,	MR, 1	NE, SN,	TD,	TG									
PRIORITY APP	LN. INFO	.:			1	US 2	002-3	39973	36P	P :	2002	0801		
OTHER SOURCE	(S):	ľ	MARPAT	140:	1638	86								

- AB Title compds. I [R1 = (un)substituted Ph, naphthyl, etc.; R2 = H, halo, phenylamino, etc.; R3 = H, alkoxy, NO2, etc.; n = 1-3] are prepared For instance, 4-chloro-6-methylquinazoline is reacted with 2-aminophenol (EtOH, reflux, 1 h) to give II. I are potent inhibitors of protein tyrosine (PTK) kinase activity, particularly epidermal growth factor receptor (EGFR) kinase activity. I are useful in treating a variety of PTK related disorders such as cell proliferative disorders, fibrotic disorders, metabolic disorders and cancer.
- IC ICM CO7D

GΙ

- CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
  Section cross-reference(s): 1, 63
- TT 77725-90-7P, 4-[[4-[Benzyloxy]phenyl]amino]quinazoline 146871-74-1P,
  4-(3-Cyanophenylamino)quinazoline hydrochloride 153437-03-7P,
  4-[[3-Chloro-4-fluorophenyl]amino]-6,7-dimethoxyquinazoline hydrochloride
  153437-09-3P, 4-[[4-Fluoro-3-nitrophenyl]amino]-6,7-dimethoxyquinazoline
  hydrochloride 153437-54-8P, 4-[3-Aminophenylamino]-6,7dimethoxyquinazoline hydrochloride 169205-77-0P, 4-[3-Bromophenylamino]-6-nitroquinazoline 169205-78-1P, 4-[3-Bromophenylamino]-6aminoquinazoline 179246-74-3P, 4-[[4-[Benzyloxy]phenyl]amino]quinazoline
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(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
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   epidermal growth factor receptor kinases)
655248-38-7P, 4-[[3-Quinolyl]amino]-6-methylquinazoline
hydrochloride 655248-39-8P, 4-[[3-Quinoly1]amino]-6-
methylquinazoline
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (preparation of 4-anilino substituted quinazolines as inhibitors of
   epidermal growth factor receptor kinases)
655248-38-7 CAPLUS
4-Quinazolinamine, 6-methyl-N-3-quinolinyl-, monohydrochloride (9CI)
                                                                       (CA
INDEX NAME)
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TT

RN

CN

#### ● HCl

655248-39-8 CAPLUS RN

4-Quinazolinamine, 6-methyl-N-3-quinolinyl- (9CI) (CA INDEX NAME) CN

L11 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

2004:60252 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 140:128427

Preparation of quinazolines as ephrin and EGFR TITLE:

receptor kinase modulators for treating cancer and

other disorders

Rice, Kenneth D.; Anand, Neel Kumar; Bussenius, Joerg; INVENTOR(S):

Costanza, Simona; Kennedy, Abigail R.; Kim, Angie I.;

Peto, Csaba J.; Tsang, Tsze H.; Blazey, Charles M.

Exelixis, Inc., USA PATENT ASSIGNEE(S):

PCT Int. Appl., 266 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT 1	NO.		KI	MD I	DATE			A.	PPLI	CATI	ои ис	o. :	DATE			
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WO 2004	00684	46	A:	2 :	2004	0122		W	20	03 -U	S219:	23	2003	0714		
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	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NΙ,	NO,	NZ,	OM,
	PG,	PH,	ΡL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	TM,	TN,
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	KG,	KZ,	MD,	RU												
RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑT,	BE,	BG,

CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-396269P P 20020715 US 2003-447212P P 20030213

MARPAT 140:128427 OTHER SOURCE(S):

GT

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The present invention provides quinazolines (shown as I; variables defined AB below; e.g. II and III) for modulating receptor tyrosine kinase activity, particularly ephrin and EGFR, and methods of treating diseases mediated by receptor kinase activity using the compds. and pharmaceutical compns. thereof. Diseases mediated by receptor kinase activity include, but are not limited to, diseases characterized in part by abnormal levels of cell proliferation (i.e. tumor growth), programmed cell death (apoptosis), cell migration and invasion and angiogenesis associated with tumor growth. Compds. of the invention include 'spectrum selective' kinase modulators, compds. that inhibit, regulate and/or modulate signal transduction across subfamilies of receptor-type tyrosine kinases, including ephrin and EGFR. Inhibitory activities for >200 examples of I are tabulated for some or all of EphB4, EphA2, KDR, Flt-1, EGFR and ErbB2 kinases. Although the methods of preparation are not claimed, 37 example prepns. are included. For example, 1,4:3,6-dianhydro-2-0-[4-[(3-chloro-2-methylphenyl)amino]-6-(methyloxy) quinazolin-7-yl]-5-0-methyl-L-iditol hydrochloride was prepared in 2 steps (94, 51 % yields, resp.) starting with mesylation of 1,4:3,6-dianhydro-2-O-methyl-D-glucitol followed by ether formation of the intermediate 1,4:3,6-dianhydro-2-O-methyl-5-O-(methylsulfonyl)-D-glucitol with 4-[(3,4-dichlorophenyl)amino]-6-(methyloxy)quinazolin-7-ol; the quinazolinol was prepared in 64 % yield from 4-chloro-6-(methyloxy)-7-[(phenylmethyl)oxy]quinazoline hydrochloride and 3,4-dichloroaniline. For I: R1 is C1-C3 (un) substituted alkyl; R2 = H, halogen, trihalomethyl, CN, NH2, NO2, OR3, N(R3)R4, S(O)0-2R4, SO2N(R3)R4, CO2R3, C(O)N(R3)R4, N(R3)SO2R4, N(R3)C(O)R3, N(R3)CO2R4, C(O)R3, (un)substituted lower alkyl, (un) substituted lower alkenyl, and (un) substituted lower alkynyl; R3 is H or R4; R4 = (un) substituted lower alkyl, (un) substituted aryl, (un) substituted lower arylalkyl, (un) substituted heterocyclyl, and (un) substituted lower heterocyclylalkyl; or R3 and R4, when taken together with a common N to which they are attached, form an (un) substituted 5-7-membered heterocyclyl, said (un) substituted five-to seven-membered heterocyclyl optionally containing at least one addnl. heteroatom = N, O, S, and P. Q is 0-5; Z = OCH2, O, S(0)0-2, N(R5)CH2, and NR5; R5 is -H or (un) substituted lower alkyl; M1 is H, (un) substituted C1-C8 alkyl-L2-L1, G(CH2)0-3, or R53(R54)N(CH2)0-3; wherein G is a saturated 5-7-membered heterocyclyl containing 1-2 annular heteroatoms; L1 is C:O or SO2; L2 is a direct bond, O, or NH; M2 is a saturated or mono- or polyunsatd. C3-C14 monoor fused-polycyclic hydrocarbyl optionally containing 1-3 annular heteroatoms per ring; M3 is NR9, O, or absent; M4 is CH2, CH2CH2, CH2CH2CH2, or absent; addnl. details are given in the claims. IC

ICM A61K

28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC

Section cross-reference(s): 1, 33, 63

IT 650580-65-7P 650580-66-8P 650580-67-9P 650580-68-0P 650580-64-6P 650580-69-1P 650580-70-4P 650580-71-5P 650580-72-6P 650580-73-7P 650580-74-8P 650580-75-9P 650580-76-0P 650580-77-1P 650580-78-2P 650580-79-3P 650580-80-6P 650580-81-7P 650580-82-8P

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (drug candidate; preparation of guinazolines as ephrin and EGFR receptor
   kinase modulators for treating cancer and other disorders)
650580-74-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (drug candidate; preparation of quinazolines as ephrin and EGFR receptor
   kinase modulators for treating cancer and other disorders)
650580-74-8 CAPLUS
4-Quinazolinamine, 7-[[4-chloro-2-(trifluoromethyl)-6-quinolinyl]methoxy]-
N-(3,4-dichlorophenyl)-6-methoxy- (9CI) (CA INDEX NAME)
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IT

RN

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650580-83-9P

650580-88-4P

650580-84-0P

650580-89-5P

L11 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:376830 CAPLUS

DOCUMENT NUMBER:

138:385441

TITLE:

Preparation of quinazolines as antitumor agents Hennequin, Laurent Francois Andre; Kettle, Jason

Grant; Pass, Martin; Bradbury, Robert Hugh

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

INVENTOR(S):

PCT Int. Appl., 218 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	K)	ND DA	ATE		Al	PPLIC	CATIO	ON NO	ο.	DATE			
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OTHER SOURCE(S)	•	MARPA	AT 138:3	8544	47								

OTHER SOURCE(S):

MARPAT 138:385441

GI

Anilino-, indolylamino-, and benzopyrazolylamino-substituted quinazolines I [wherein R1, R2, R3, and R6 = independently H or alkyl; Z = a bond, O, S, or NR2; Q1 = (un)substituted cycloalkyl(alkyl), cycloalkyl(alkenyl), cycloalkyl(alkynyl), or heterocyclyl(alkyl); with the proviso that alkylene chains within Q1Z are optionally interrupted by O, S, SO, SO2, NR3, CO, CHOR3, CONR3, NR3CO, SO2NR3, NR3SO2, CH=CH, or C.tplbond.C; Q2 = (un) substituted C6H4-4-X2Q2, 1-(X3Q4) indol-5-yl, 1-(X3Q4) -indol-6-yl, 1-(X3Q4)-1H-benzopyrazol-5-yl, or 1-(X3Q4)-1H-benzopyrazol-6-yl; X2 = abond, O, S, SO, SO2, NR6, CHOR6, CONR6, NR6CO, SO2NR6, NR6SO2, OC(R6)2, C(R6)20, SC(R6)2, C(R6)2S, CO, C(R6)2NR6, or NR6C(R6)2; or X2Q3 =heterocyclylcarbonyl; X3 = a bond, SO2, CO, SO2NR7, or C(R7)2; Q3 and Q4 = independently (un) substituted (heteroaryl); and pharmaceutically acceptable salts thereof] were prepared for use in the prevention or treatment of tumors which are sensitive to inhibition of erbB receptor tyrosine kinases. For example, coupling of 4-hydroxy-1-methylpiperidine with 5-fluoro-3,4-dihydroquinazolin-4-one using NaH in DMA gave the ether (91%). Reaction with POCl3 and di-isopropylethylamine in DCM provided 4-chloro-5-(1-methylpiperidin-4-yloxy)quinazoline (62%), which was coupled with 5-amino-1-benzylindole in the presence of IPA containing HCl in ether to afford II-HCl (46%). The biol. activity of the example compds. was assessed in five assays. Thus, I inhibited the phosphorylation of a tyrosine-containing polypeptide substrate by epidermal growth factor receptor (EGFR) kinase, erbB2 kinase, and erbB4 kinase with IC50 values in the range of 0.001 μM - 10 μM. I also inhibited the proliferation of both human naso-pharyngeal carcinoma KB cells and non-neoplastic epithelial H16N-2 cells with IC50 values in the range 0.001  $\mu M$  - 20 μΜ. In addition, I inhibited the growth of colorectal adenocarcinoma LoVo and human mammary carcinoma BT-474 tumor cell xenografts in vivo with activities in the range of 1 mg/kg/day to 200 mg/kg/day with no physiol. unacceptable toxicity at the ED.

IC ICM C07D239-94

ICS C07D401-14; C07D401-12; C07D409-12; C07D403-12; C07D417-14; C07D413-14; C07D409-14; A61K031-505; A61P035-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

TT 524953-51-3P, 4-(1-Benzylindol-5-ylamino)-5-(1-methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-53-5P, 4-(3-Chloro-4-phenoxyanilino)-5-(1-methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-54-6P, 4-[3-Chloro-4-(3-fluorobenzyloxy) anilino]-5-(1-methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-55-7P, 5-(1-Methylpiperidin-4-yloxy)-4-(4-phenoxyanilino) quinazoline hydrochloride 524953-56-8P, 5-(1-Methylpiperidin-4-yloxy)-4-[4-(phenylthio) anilino] quinazoline hydrochloride 524953-57-9P, 4-[1-(Benzenesulfonyl) indol-5-ylamino]-5-(1-methylpiperidin-4-

yloxy)quinazoline hydrochloride 524953-58-0P, 4-[3-Chloro-4-(3pyridyloxy)anilino]-5-(1-methylpiperidin-4-yloxy)quinazoline hydrochloride 524953-59-1P, 4-[3-Chloro-4-(3-fluorophenoxy)anilino]-5-(1-methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-61-5P, 4-[3-Chloro-4-(2,3difluorophenoxy) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524953-63-7P, 4-[3-Chloro-4-(2-pyrimidinyloxy)anilino]-5hydrochloride (1-methylpiperidin-4-yloxy)quinazoline hydrochloride 524953-64-8P, 4-[3-Chloro-4-(2-thenoyl)anilino]-5-(1-methylpiperidin-4-yloxy)quinazoline 524953-65-9P, 4-[3-Chloro-4-[(1-methyl-1H-imidazol-2hydrochloride yl) methoxy] anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-66-0P, 4-[3-Chloro-4-[(2-pyridylmethyl)amino]anilino]-5-(1methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-68-2P, 5-(1-Methylpiperidin-4-yloxy)-4-[3-methyl-4-[(2pyridylmethyl)amino]anilino]quinazoline hydrochloride 524953-70-6P, 4-[3-Chloro-4-[N-methyl-N-(2-pyridyl)amino]anilino]-5-(1-methylpiperidin-4yloxy)quinazoline hydrochloride 524953-72-8P, 4-[3-Chloro-4-(2pyridylamino) anilino] -5- (1-methylpiperidin-4-yloxy) quinazoline 524953-74-0P, 5-(1-Methylpiperidin-4-yloxy)-4-[3-methyl-4hydrochloride (2-pyridylamino)anilino]quinazoline hydrochloride 524953-76-2P, 4-[3-Methyl-4-[N-methyl-N-(2-pyridyl)amino]anilino]-5-(1-methylpiperidin-4yloxy)quinazoline hydrochloride 524953-78-4P, 4-[3-Chloro-4-[(3fluorophenylamino) methyl] anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline hydrochloride 524953-80-8P, 4-[3-Chloro-4-(8quinolylthio) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524953-82-0P, 4-[3-Chloro-4-[(1-methyl-1H-imidazol-2hydrochloride yl)thio]anilino]-5-(1-methylpiperidin-4-yloxy)quinazoline 524953-83-1P, 4-[3-Chloro-4-(2-pyridyloxy)anilino]-5-(1-methylpiperidin-4-524953-84-2P, 5-(1-Methylpiperidin-4-yloxy)-4-[3yloxy)quinazoline methyl-4-(2-pyridylmethoxy)anilino]quinazoline 524953-86-4P, 4-[3-Chloro-4-(1,5-dimethylpyrazol-3-ylmethoxy)anilino]-5-(1methylpiperidin-4-yloxy)quinazoline 524953-88-6P, 4-[3-Chloro-4-(1methylpyrazol-3-ylmethoxy) anilino]-5-(1-methylpiperidin-4-524953-90-0P, 4-[3-Chloro-4-[(3-methylisoxazol-5yloxy) quinazoline y1) methoxy] anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524953-92-2P, 4-[4-(Azepan-1-ylcarbonyl)-3-chloroanilino]-5-(1methylpiperidin-4-yloxy)quinazoline 524953-95-5P, 4-[1-(3-Fluorobenzyl) indazol-5-ylamino]-5-(1-methylpiperidin-4-yloxy) quinazoline 524953-97-7P, 4-[3-Chloro-4-(3-fluorobenzyloxy)anilino]-5-[(tetrahydropyran-4-yl)oxy]quinazoline 524953-99-9P, 4-[3-Chloro-4-(3-fluorobenzyloxy)anilino]-5-(1-methylpyrrolidin-3-524954-00-5P, 4-[3-Chloro-4-(3yloxy) quinazoline fluorobenzyloxy)anilino]-5-[(tetrahydrofuran-3-yl)oxy]quinazoline 524954-01-6P, 4-[4-(2-Bromobenzyloxy)-3-chloroanilino]-5-(1methylpiperidin-4-yloxy)quinazoline 524954-03-8P, 4-[3-Chloro-4-([1,2,5]thiadiazol-3-ylmethoxy)anilino]-5-(1-methylpiperidin-4yloxy) quinazoline 524954-04-9P, 4-(4-Benzyloxy-3-fluoroanilino)-5-(1-524954-06-1P, 4-[3-Fluoro-4-(2methylpiperidin-4-yloxy)quinazoline fluorobenzyloxy) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524954-07-2P, 4-[4-(2,6-Difluorobenzyloxy)-3-fluoroanilino]-5-(1methylpiperidin-4-yloxy)quinazoline 524954-08-3P, 4-[4-(2-Cyanobenzyloxy) -3-fluoroanilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524954-09-4P, 4-[3-Fluoro-4-(2-pyridylmethoxy)anilino]-5-(1methylpiperidin-4-yloxy)quinazoline 524954-10-7P, 4-[3-Fluoro-4-(5methylisoxazol-3-ylmethoxy) anilino]-5-(1-methylpiperidin-4-524954-11-8P, 4-[3-Chloro-4-(3,4yloxy) quinazoline difluorobenzyloxy)anilino]-5-(1-methylpiperidin-4-yloxy)quinazoline 524954-12-9P, 4-[3-Chloro-4-(isoxazol-3-ylmethoxy)anilino]-5-(1methylpiperidin-4-yloxy) quinazoline 524954-13-0P, 4-[3-Chloro-4-(5methylisoxazol-3-ylmethoxy) anilino]-5-(tetrahydropyran-4-yloxy) quinazoline 524954-15-2P, 4-[3-Chloro-4-(2-pyrazinylmethoxy)anilino]-5-

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[(tetrahydropyran-4-yl)oxy]quinazoline
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4-[3-Chloro-4-(5-methylisoxazol-3-yl)anilino]-5-[(tetrahydrofuran-3-
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yl)oxy]quinazoline
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524954-20-9P, 4-(4-Benzyloxy-3-methylanilino)-5-(1-methylpiperidin-4-
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                                                        524954-23-2P,
4-[4-(2,6-Difluorobenzyloxy)-3-methylanilino]-5-(1-methylpiperidin-4-
                   524954-24-3P, 4-[3-Methyl-4-(5-methylisoxazol-3-
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524954-25-4P, 5-(1-Methylpiperidin-4-yloxy)-4-[3-methyl-4-(thiazol-4-
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                                                       524954-27-6P,
4-[4-(3-Fluorobenzyloxy)-3-methylanilino]-5-(1-methylpiperidin-4-
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                  524954-28-7P, 4-[3-Fluoro-4-(3-
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524954-30-1P, 4-[3-Chloro-4-(2-methyloxazol-4-ylmethoxy)anilino]-5-(1-
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524954-35-6P, 4-[3-Chloro-4-(decahydroquinolin-1-ylcarbonyl)anilino]-5-(1-
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(decahydroisoquinolin-2-ylcarbonyl)anilino]-5-(1-methylpiperidin-4-
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524954-40-3P, 4-[3-Chloro-4-(4-methylpiperidin-1-ylcarbonyl)anilino]-5-(1-
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ylcarbonyl)anilino]-5-(1-methylpiperidin-4-yloxy)quinazoline
524954-45-8P, 4-[3-Chloro-4-(3-fluorobenzyloxy)anilino]-5-(1-
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524954-47-0P, 4-[3-Chloro-4-(3-fluorobenzyloxy)anilino]-5-[[1-(2-
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4-[1-(3-Fluorobenzyl)indol-5-ylamino]-5-(1-methylpiperidin-4-
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              524954-71-0P, 4-[3-Ethynyl-4-(3-fluorobenzyloxy)anilino]-5-
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4-[3-Ethynyl-4-(2,6-difluorobenzyloxy)anilino]-5-[(1-methylpiperidin-4-
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4-[3-Chloro-4-(2-thiazolylthio)anilino]-5-(1-methylpiperidin-4-
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524955-02-0P, 4-[3-Chloro-4-([1,2,4]oxadiazol-3-ylmethoxy)anilino]-5-(1-
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methyl-1,2,4-oxadiazol-3-ylmethoxy)anilino]-5-(1-methylpiperidin-4-
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1H-imidazol-2-yl]thio]-3-fluoroanilino]-5-(1-methylpiperidin-4-
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dihydrochloride
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4-[3-Chloro-4-(3-fluorobenzyloxy)aniline]-5-[[1-(4-methylpiperazin-1-
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524955-32-6P, 4-[3-Chloro-4-(2-pyridylmethoxy)anilino]-5-(2-
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524955-35-9P, 4-[3-Chloro-4-(2-pyridylmethoxy)anilino]-5-[2-(azepan-1-
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524955-54-2P, 4-[3-Chloro-4-(2-chloro-6-fluorobenzyloxy)anilino]-5-(1-
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524955-67-7P, 4-[3-Chloro-4-(thiazol-4-ylmethoxy)anilino]-5-(1-
methylpiperidin-4-yloxy)quinazoline 524955-68-8P, 4-[3-Chloro-4-[(6-
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chloro-3-pyridyl) methoxy] anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-20-5P, 4-(3-Chloro-4-phenoxyanilino) -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-21-6P, 4-[3-Chloro-4-(3-fluorobenzyloxy) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-22-7P, 4-(1-Benzylindol-5-ylamino) -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-23-8P, 4-[1-(Benzenesulfonyl) indol-5-ylamino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-24-9P, 4-[3-Chloro-4-(3-fluorophenoxy) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-25-0P, 4-[3-Chloro-4-(2-thienoyl) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-26-1
P, 4-[3-Ethynyl-4-(3-fluorobenzyloxy) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline 524956-27-2P, 4-[3-Ethynyl-4-(2,6-difluorobenzyloxy) anilino] -5-(1-methylpiperidin-4-yloxy) quinazoline

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(antitumor agent; preparation of quinazolines as erbB receptor tyrosine kinase inhibitors for treatment of cancer)

IT 524953-80-8P, 4-[3-Chloro-4-(8-quinolylthio)anilino]-5-(1methylpiperidin-4-yloxy)quinazoline hydrochloride
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(antitumor agent; preparation of quinazolines as erbB receptor tyrosine kinase inhibitors for treatment of cancer)

RN 524953-80-8 CAPLUS

CN

4-Quinazolinamine, N-[3-chloro-4-(8-quinolinylthio)phenyl]-5-[(1-methyl-4-piperidinyl)oxy]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:489404 CAPLUS

DOCUMENT NUMBER:

135:76901

TITLE:

Preparation of quinazoline and quinoline derivatives

as remedies for diseases mediated by

autophosphorylation of PDGF receptors

INVENTOR(S):

Ueno, Kimihisa; Ogawa, Akira; Ohta, Yoshihisa; Nomoto,

Yuji; Takasaki, Kotaro; Kusaka, Hideaki; Yano, Hiroshi; Suzuki, Chiharu; Nakanishi, Satoshi

PATENT ASSIGNEE(S):

Kyowa Hakko Kogyo Co., Ltd., Japan

SOURCE:

PCT Int. Appl., 126 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

PATENT INFORMATION:

PATEN	ON TN		KI	ND 1	DATE			A)	PPLI	CATI	ON NC	o. :	DATE			
WO 20	001047	931 A	1	:	2001	0705		W	20	00-J	P916	0	2000	1222		
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C	CU, CZ	, DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,
I	IL, IN	, IS,	JP,	ΚE,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,
M	MG, MK	, MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,
. 5	SL, TJ	, TM,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	AZ,	BY,
K	KG, KZ	, MD,	RU,	ТJ,	TM											
RW: A	AT, BE	, BF,	ВJ,	CF,	CG,	CH,	CI,	CM,	CY,	DE,	DK,	ES,	FI,	FR,	GΑ,	GB,
G	GR, IE	, IT,	LU,	MC,	ML,	MR,	ΝE,	NL,	PT,	SE,	SN,	TD,	TG,	TR		
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 $V^{2}$ 
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AB Title compds. [I; X = N, CH; R3, R4, R5, R6 independently = H, Cl, F, CH3, CH30, NO2; A = 4-CH3C6H4CH2OCONH, 3-ClC6H4CH(CH3)OCONH, 4-FC6H4CH2OCONH, 2-ClC6H4CH(CH3)OCONH, 2-ClC6H4CH2CH2CH2OCONH, 4-CF3C6H4CH2OCONH, CH3(CH2)5OCONH, (CH3CH2)2N(CH2)3NHCSNH, YNHCONH, 4-ClC6H4O(CH2)2S, 4-ClC6H4(CH2)2NH, 3-BrC6H4CONHCSNH, C6H5COO, OH, OCH2COOCH3, OCH2COOH; Y = heterocycle, heterocyclylalkyl] and

ΙI

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pharmaceutically acceptable salts are prepared as remedies for diseases
     mediated by autophosphorylation of PDGF receptors.
                                                          Thus, the title
     claimed compound II was prepared and biol. tested.
IC
     ICM C07D487-14
          A61K031-519; A61K031-522; A61K031-5377; A61P003-10; C07D487-14;
     ICS
          C07D233-58; C07D233-64; C07D239-58; C07D487-14; C07D233-58;
          C07D233-64; C07D239-26
CC
     28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 1, 63
                                                   347156-92-7P
                    347156-90-5P
                                   347156-91-6P
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        (preparation of quinazolines and quinolines as remedies for diseases
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mediated by autophosphorylation of PDGF receptors)

IT 347157-60-2P

CN

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinazolines and quinolines as remedies for diseases mediated by autophosphorylation of PDGF receptors)

RN 347157-60-2 CAPLUS

Isoquinoline, 2-[[4-[(6,7-dimethoxy-4-quinazolinyl)oxy]phenoxy]acetyl]1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:489372 CAPLUS

DOCUMENT NUMBER:

135:92649

TITLE:

Preparation of quinazoline and quinoline derivatives

as remedies for diseases mediated by autophosphorylation of PDGF receptors

INVENTOR(S):

Sakai, Teruyuki; Senga, Teruhumi; Furuta, Takayuki;

Miwa, Atushi

PATENT ASSIGNEE(S):

Kirin Beer Kabushiki Kaisha, Japan

SOURCE:

PCT Int. Appl., 1068 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: JP 1999-377486 A 19991224

JP 1999-374494 A 19991228 JP 2000-177790 A 20000614

WO 2000-JP9157 W 20001222

OTHER SOURCE(S): MARPAT 135:92649

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Title compds. [I; X = N, CH; R3, R4, R5, R6 independently = H, Cl, F, CH3, CH3O, NO2; A = 4-CH3C6H4CH2OCONH, 3-ClC6H4CH(CH3)OCONH, 4-FC6H4CH2OCONH, 2-ClC6H4CH(CH3)OCONH, 2-ClC6H4CH2CH2CH2OCONH, 4-CF3C6H4CH2OCONH, CH3(CH2)5OCONH, (CH3CH2)2N(CH2)3NHCSNH, YNHCONH, 4-ClC6H4O(CH2)2S, 4-ClC6H4(CH2)2NH, 3-BrC6H4CONHCSNH, C6H5COO, OH, OCH2COOCH3, OCH2COOH; Y = heterocycle, heterocyclylalkyl] and pharmaceutically acceptable salts are prepared as remedies for diseases mediated by autophosphorylation of PDGF receptors, particularly useful as intimal thickening inhibitors. Thus, the title claimed compound II was prepared and biol. tested.

II

IC ICM C07D215-233

ICS C07D239-88; C07D401-12; C07D403-12; C07D405-12; A61K031-47; A61K031-496; A61K031-5377; A61K031-505; A61K031-4709; A61K031-517; A61P043-00; A61P009-10

CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63

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study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of quinazolines and quinolines as remedies for diseases
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(preparation of quinazolines and quinolines as remedies for diseases mediated by autophosphorylation of PDGF receptors)

#### IT 347157-60-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinazolines and quinolines as remedies for diseases mediated by autophosphorylation of PDGF receptors)

RN 347157-60-2 CAPLUS

CN Isoquinoline, 2-[[4-[(6,7-dimethoxy-4-quinazolinyl)oxy]phenoxy]acetyl]-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:228866 CAPLUS

DOCUMENT NUMBER:

134:266317

TITLE:

Preparation of quinazolines as aurora 2 kinase

inhibitors

INVENTOR(S):

Mortlock, Andrew Austen; Keen, Nicholas John; Jung,

Frederic Henri; Brewster, Andrew George

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 306 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT I	NO.		KII	ND.	DATE				API	PLIC	CATIO	ON NO	ο.	DATE			
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Title compds. (I) [wherein X = O, S, SO, SO2, NH, or NR12; R12 = H or AB alkyl; R1-R4 = independently halo, CN, NO2, alkylsulfanyl, N(OH)R13, or R15X1; R13 = H or alkyl; X1 = a direct bond, O, CH2, OC(O), CO, CO2, S, SO, SO2, or (un) substituted NHCO, CONH, SO2NH, NHSO2, or NH; R15 = H or (un) substituted hydrocarbyl, heterocyclyl, or alkoxy; R5 = NHCO2R9, NHCOR9, NHSO2R9, COR9, CO2R9, SOR9, SO2OR9, CONR10R11, SONR10R11, or SO2NR10R11; R9-R11 = independently H or (un) substituted hydrocarbyl or heterocyclyl; or R10 and R11 together with the N to which they are attached = (un)substituted heterocyclyl; R6 = H or (un)substituted hydrocarbyl or heterocyclyl; R7 and R8 = independently H, halo, alkyl, (di)alkoxy(methyl), alkanoyl, CF3, CN, NHY2, alkenyl, alkynyl, or (un) substituted Ph, PhCH2, or heterocyclyl; or a salt, ester, or amide thereof] were prepared as aurora 2 kinase inhibitors for the treatment of proliferative diseases, such as cancer. For example, a 7-step sequence involving (1) alkylation of morpholine with 1-bromo-3-chloropropane (49%), (2) addition of Et vanillate to yield Et 3-methoxy-4-(3morpholinopropoxy)benzoate (100%), (3) nitration (86%), (4) reduction to the amine using 10% Pd/C (100%), (5) cycloaddn. with formamide to form the quinazoline(68%), (6) chlorination to give 4-chloro-6-methoxy-7-(3morpholinopropoxy) quinazoline (60%), and (7) amination with N-benzoyl-4-aminoaniline (58%) yielded II. The latter inhibited the serine/threonine kinase activity of aurora 2 kinase by 50% at a concentration

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0.0193  $\mu M$ . In addition, II gave 50% inhibition of MCF-7 cell proliferation at 1.06  $\mu M$  and reduced BrdU incorporation into cellular DNA by 50% at 0.159-0.209  $\mu M$ .

IC ICM C07D239-94

ICS A61K031-517; A61P035-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

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331770-40-2P

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RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of 4-substituted quinazoline aurora 2 kinase inhibitors for
   treatment of cancer and other proliferative diseases)
331770-45-7P
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study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation of 4-substituted quinazoline aurora 2 kinase inhibitors for
   treatment of cancer and other proliferative diseases)
331770-45-7
            CAPLUS
2-Quinolinecarboxamide, N-[4-[(6,7-dimethoxy-4-quinazolinyl)amino]phenyl]-
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(CA INDEX NAME)

IT

RN

CN

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:228864 CAPLUS

DOCUMENT NUMBER: 134:252355

TITLE: Preparation of quinazolines as aurora 2 kinase

inhibitors

INVENTOR(S): Mortlock, Andrew Austen; Keen, Nicholas John

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE	₹
WO 2001021594 A1 20010329 WO 2000-GB3556 2000	00918
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ,	, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE,	, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,	, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL,	, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,	, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT,	, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,	, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	
BR 2000014133 A 20020611 BR 2000-14133 2000	00918
EP 1218356 A1 20020703 EP 2000-962677 2000	00918
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL,	, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL	
JP 2003509497 T2 20030311 JP 2001-524973 2000	
EE 200200149 A 20030415 EE 2002-149 2000	
AU 763242 B2 20030717 AU 2000-74325 2000	
ZA 2002001833 A 20030605 ZA 2002-1833 2002	
BG 106491 A 20021229 BG 2002-106491 2002	
NO 2002001401 A 20020521 NO 2002-1401 2002	
PRIORITY APPLN. INFO.: GB 1999-22152 A 1999	-
GB 1999-22156 A 1999	
GB 1999-22159 A 1999	
WO 2000-GB3556 W 2000	00918

OTHER SOURCE(S): MARPAT 134:252355

GI

$$R^{2}$$
 $R^{2}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{4$ 

II

Title compds. (I) [wherein X = O, S, SO, SO2, NH, or NR8; R8 = H or alkyl; Ra = (un)substituted 3-quinolinyl or Ph; R1-R4 = independently halo, CN, NO2, alkylsulfanyl, N(OH)R12, or R14X1; R12 = H or alkyl; X1 = a direct bond, O, CH2, OC(O), CO, S, SO, SO2, or (un)substituted NHCO, CONH, SO2NH, NHSO2, or NH; R14 = H or (un)substituted hydrocarbyl, heterocyclyl, or alkoxy; or a salt, ester, or amide thereof] were prepared as aurora 2 kinase inhibitors for the treatment of proliferative diseases, such as cancer. For example, 4-phenoxyaniline•HCl and 4-chloro-6-methoxy-7-(3-morpholinopropoxy)quinazoline were refluxed in i-PrOH to yield II (86%). The latter inhibited the serine/threonine kinase activity of aurora 2 kinase by 50% at a concentration of 0.069 μM. In addition, II gave 50% inhibition of MCF-7 cell proliferation at 2.89 μM and reduced BrdU incorporation into cellular DNA by 50% at 3.68 μM.

IC ICM C07D239-94

ICS C07D401-12; A61P035-00; A61K031-517

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

IT	179246-62 <b>-</b> 9P	179688-83-6P	183319-34-8P	330999-28-5P	330999-29-6P
	330999-30-9P	330999-31-0P	330999-32-1P	330999-33-2P	330999-34-3P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 4-substituted quinazoline aurora 2 kinase inhibitors by coupling quinolinyl or Ph alcs., thiols, or amines with 4-haloguinazolines)

IT 330999-72-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 4-substituted quinazoline aurora 2 kinase inhibitors by coupling quinolinyl or Ph alcs., thiols, or amines with 4-haloquinazolines)

RN 330999-72-9 CAPLUS

CN 4-Quinazolinamine, 6-methoxy-7-[3-(4-morpholinyl)propoxy]-N-3-quinolinyl-(9CI) (CA INDEX NAME)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:113672 CAPLUS

DOCUMENT NUMBER: 130:182476

TITLE: Preparation of heterocyclic compounds as irreversible

bicyclic inhibitors of tyrosine kinases

INVENTOR(S): Bridges, Alexander James

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: PCT Int. Appl., 131 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P	ATENT	KI	DATE		APPLICATION NO. DATE														
W	 NO 9906396			 A:	 1	 19990211			V	NO 19	98-U	S155	 92	19980729					
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														BY,					
		RU,	ТJ,	TM															
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US 6153617																			
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PRIORITY APPLN. INFO.:								1	US 1	L997-	5406	1P	P	1997	0729				
								1	WO 1	L998-	US15	592	W	1998	0729				
								1	US 1	L999-	2696	47	Α3	1999	0325				
								1	US 2	2000-	6563	31	В1	2000	0906				

OTHER SOURCE(S): MARPAT 130:182476

GI

The title compds., e.g. I [X = DEF, Y = SR4, etc.; or X = SR4, etc., andAB Y = DEF; D = O, etc.; E = CO, etc.; F = CR1(:C):C(R5)H, etc.; a proviso is given; R1 = H, halo, etc.; R5 = H, halo, perfluoroalkyl, etc.; Z = indoline moiety (generic structure given), etc.; R4 = H, alkyl, etc.], are prepared This invention also provides a method of treating cancer, restenosis, atherosclerosis, endometriosis, and psoriasis and a pharmaceutical composition that comprises a compound that is an irreversible inhibitor of tyrosine kinases. N-[4-(6-bromo-2,3-dihydroindol-1yl)quinazolin-6-yl]acrylamide in vitro showed IC50 of 0.4 nM against epidermal growth factor receptor tyrosine kinase.

IC ICM C07D403-04 ICS A61K031-505; C07D401-04; C07D413-14

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1 IT

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                               220577-19-5P
                                               220577-20-8P
                                                              220577-21-9P
               220577-23-1P
                                                              220577-26-4P
220577-22-0P
                               220577-24-2P
                                               220577-25-3P
220577-27-5P
               220577-28-6P
                               220577-29-7P
                                               220577-30-0P
                                                               220577-31-1P
220577-32-2P
               220577-33-3P
                               220577-34-4P
                                               220577-35-5P
                                                              220577-36-6P
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220577-39-9P 220577-41-3P 220577-40-2P 220577-37-7P 220577-38-8P 220577-45-7P 220577-43-5P 220577-44-6P 220577-46-8P 220577-47-9P 220577-51-5P 220577-52-6P 220577-48-0P 220577-49-1P 220577-50-4P 220577-54-8P 220577-57-1P 220577-53-7P 220577-55-9P 220577-56-0P 220577-58-2P 220577-59-3P 220577-60-6P 220577-61-7P 220577-62-8P 220577-66-2P 220577-63-9P. 220577-64-0P 220577-65-1P 220577-67-3P 220577-68-4P 220577-69-5P 220577-70-8P 220577-71-9P 220577-72-0P 220577-77**-**5P 220577-73-1P 220577-76-4P 220577-74-2P 220577-75-3P 220577-79-7P 220577-80-0P 220577-81-1P 220577-82-2P 220577-78-6P 220577-86-6P 220577-83-3P 220577-84-4P 220577-85-5P 220577-88-8P 220577-90-2P 220577-92-4P 220577-94-6P 220577-96-8P 220577-98-0P 220578-00-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic compds. as irreversible bicyclic inhibitors of tyrosine kinases)

IT 220576-75-0P 220576-77-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic compds. as irreversible bicyclic inhibitors of tyrosine kinases)

RN 220576-75-0 CAPLUS

CN 2-Propynamide, N-[4-(3-quinolinylamino)-6-quinazolinyl]- (9CI) (CA INDEX NAME)

RN 220576-77-2 CAPLUS

CN 2-Propynamide, N-[4-(3-quinolinylamino)-7-quinazolinyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 1996:304564 CAPLUS

DOCUMENT NUMBER:

125:58435

TITLE:

Synthesis and biological activities of some new

heterocyclic compounds bearing 2-phenyl-6-

iodoquinazolinyl-4-oxy moiety. Part I

AUTHOR(S):

Abdel-Hamide, S. G.; El-Hakim, A.E.; Abdel-Rahman,

R.M.

CORPORATE SOURCE:

SOURCE:

Faculty of Pharmacy, Al-Azhar University, Nasr, Egypt Indian Journal of Heterocyclic Chemistry (1996), 5(3),

219-222

CODEN: IJCHEI; ISSN: 0971-1627

PUBLISHER:

Lucknow University, Dep. of Chemistry

DOCUMENT TYPE:

Journal English

LANGUAGE:

GI

AB New heterocyclics with a 2-phenyl-6-iodoquinazolinyl-4-oxy moiety e.g. I (R = CH2CONHNH2, 2-amino-1,3,4-thiadiazol-5-ylmethyl, 2,4-dihydroxy-3-quinolinyl, 3-mercapto-1H-1,2,4-triazol-5-ylmethyl) have been prepared from the reactions of 4-carboethoxymethyloxy-2-phenyl-6-iodoquinazoline with various nitrogen compds. followed by cyclization reactions. Some of these new heterocyclics have been tested for their bactericidal activities.

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 10

IT 178206-31-0P 178206-32-1P 178206-33-2P **178206-35-4P** 178206-36-5P 178206-38-7P 178206-39-8P 178206-41-2P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of new 2-phenyl-6-iodoquinazolinyl-4-oxy heterocyclics)

IT 178206-35-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of new 2-phenyl-6-iodoquinazolinyl-4-oxy heterocyclics)

RN 178206-35-4 CAPLUS

CN 2(1H)-Quinolinone, 4-hydroxy-3-[(6-iodo-2-phenyl-4-quinazolinyl)oxy]-

(9CI) (CA INDEX NAME)

L11 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:23238 CAPLUS

DOCUMENT NUMBER: 122:31545

TITLE: Preparation of aminoquinazolines useful in the

treatment of cancer

INVENTOR(S): Barker, Andrew John; Brown, Dearg Sutherland

PATENT ASSIGNEE(S): Zeneca, UK

SOURCE: Eur. Pat. Appl., 39 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PAT	ENT	NO.		KIN	ID	DATE			AF	PLI	CATI	CON	NC	).	DATE	Ξ			
								<b>-</b>												
	ΕP	6028	51		A1		1994	0622		EF	19	93-3	309	680	)	1993	31203			
	ΕP	6028	51		B1		1996	1009												
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IE,	I	Т,	LI,	LU,	MC,	NL,	PT,	SE
	ΑU	9350	728		A1		1994	0623		ΑU	19	93-5	507	28		1993	31116			
	ΑU	6644	96		В2	:	1995	1116												
	ZA	9308	594		Α		1994	0610		$z_{P}$	. 19	993-8	359	4		1993	31117			
	CA	2103	383		AA	1	1994	0611		CP	. 19	93-2	210	338	33	1993	31118			
	ΙL	1076	78		A1		1999	0312		II	. 19	993-1	L07	678	3	1993	31119			
	HU	6562	2		A2	!	1994	0728		HU	19	93-3	332	8		1993	31124			
	FΙ	9305	431		Α		1994	0611		FJ	19	93-5	543	1		1993	31203			
	AΤ	1439	56		E		1996	1015		ΑT	19	93-3	309	680	)	1993	31203			
	ES	2093	367		Т3	,	1996	1216		ES	19	93-3	309	680	)	1993	31203			
	CZ	2836	12		ве	;	1998	0513		CZ	19	93-2	265	1		1993	31206			
	NO	9304	504		Α		1994	0613		NC	19	993-4	150	4		1993	31209			
	JΡ	0633	6481		A2	?	1994	1206		JI	19	993-3	309	184	ł	1993	31209			
	JP	3330	706		B2	?	2002	0930												
	CN	1094	043		Α		1994	1026		CN	1 19	993-1	120	872	2	1993	31210			
	US	5580	870		Α		1996	1203		US	19	93-1	164	725	5	1993	31210			
PRIOR	ITY	APP	LN.	INFO.	. <b>:</b>				(	GB 19	92-	-2576	55		A	1992	21210			
									(	GB 19	93-	-1024	18		Α	1993	30518			
										_										

OTHER SOURCE(S): MARPAT 122:31545

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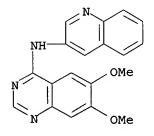
The title compds. [I; Q = 9- or 10-membered bicyclic heterocyclic moiety containing 1-2 N atoms; R1 = OH, NH2, ureido, hydroxyamino, trifluoromethoxy, (un)substituted C1-4 alkyl, C1-4 alkoxy, pyrrolidin-1-yl, piperidino, etc.; m = 1-3], useful in the treatment of cancer (no data), are prepared and I-containing formulations presented. Thus, 4-chloro-6,7-dimethoxyquinazoline was reacted with 5-aminoquinoline, producing 6,7-dimethoxy-4-(5-quinolylamino)quinazoline, m.p. > 240°, in 35% yield.

IC ICM C07D403-12

ICS C07D409-12; C07D239-94; C07D417-12; C07D403-14; C07D491-056;

A61K031-505

28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC Section cross-reference(s): 63 159737-57-2P 159737-58-3P 159737-59-4P 159737-60-7P IT 159526-22-4P 159737-61-8P 159737-62-9P 159737-63-0P 159737-64-1P 159737-65-2P 159737-71-0P 159737-66-3P 159737-68-5P 159737-69-6P 159737-70-9P 159737-74-3P 159737-75-4P 159737-72-1P **159737-73-2P** 159737-78-7P 159768-19-1P 159768-20-4P 159737-76-5P 159737-77-6P 159768-23-7P 159768-25-9P 159768-24-8P 159768-21-5P 159768-22-6P 159768-29-3P 159768-30-6P 159768-31-7P 159768-27-1P 159768-28-2P 159768-39-5P 159768-40-8P 159768-33-9P 159768-36-2P 159768-34-0P 159768-43-1P 159768-44-2P 159768-45-3P 159768-41-9P 159768-42-0P 159768-49-7P 159768-55-5P 159768-56-6P 159768-46-4P 159768-47-5P 159768-58-8P 159768-59-9P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as anticancer agent) 159737-73-2P TT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as anticancer agent) 159737-73-2 CAPLUS RN4-Quinazolinamine, 6,7-dimethoxy-N-3-quinolinyl-, dihydrochloride (9CI) CN (CA INDEX NAME)



●2 HCl

#### => => d .ca hitstr l12 1-23

L12 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:41281 CAPLUS

DOCUMENT NUMBER: 140:94060

TITLE: Preparation of benzodioxole-containing quinazolines

with MAP kinase inhibitory activity for treatment of

cancer

INVENTOR(S): Hennequin, Laurent François Andre; Foote, Kevin

Michael; Gibson, Keith Hopkinson

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 173 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

#### PATENT INFORMATION:

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APPLICATION NO.
                                                                  DATE
     PATENT NO.
                        KIND
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                                               _____
                                               WO 2003-GB2874
                                                                  20030704
     WO 2004004732
                         A1
                              20040115
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
              PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
              TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
              CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                            GB 2002-15825
                                                               A 20020709
PRIORITY APPLN. INFO.:
                                                              A 20030605
                                            GB 2003-12897
OTHER SOURCE(S):
                           MARPAT 140:94060
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$$Z^{2-R14}$$
 $R^{1}m$ 
 $R^{3}n$ 

AB The invention concerns benzodioxole-containing quinazolines (shown as I; variables defined below; e.g. II), processes for their preparation, pharmaceutical compns. containing them and their use in the manufacture of a medicament for use as an anti-invasive or anti-proliferative agent in the containment and/or treatment of solid tumor disease (no data). Compds. I possess p44MAP kinase inhibitory activity (no data). Methods of preparation are claimed and .apprx.90 example prepns. are included. For example, II was prepared from N-(7-iodo-1,3-benzodioxol-4-yl)-6-methoxy-7-[3-(morpholin-4-yl)propoxy]quinazolin-4-amine and Me propargyl ether in the presence of

I

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bis(triphenylphosphine)palladium(II) chloride, copper iodide and iPr2NH in
    EtOAc; prepns. of the reactants are also described. For I: Z is O, S, SO,
    SO2, N(R2) or C(R2)2 (R2 is H or (1-6C)alkyl); m is 0-4; each R1 = halo,
     trifluoromethyl, cyano, isocyano, nitro, hydroxy, mercapto, amino, formyl,
     carboxy, carbamoyl, (1-6C) alkyl, (2-8C) alkenyl, (2-8C) alkynyl, etc. N =
     0-2; R3 = halo, trifluoromethyl, cyano, nitro, hydroxy, amino, carboxy,
     carbamoyl, (1-6C)alkyl, (2-8C)alkenyl, (2-8C)alkynyl, (1-6C)alkoxy, etc.;
     Z2 is C.tplbond.C or C(R13):C(R13) (R13 is H or (1-6C) alkyl); and R14 =
    halo, cyano, isocyano, formyl, carboxy, (2-8C)alkenyl, (2-8C)alkynyl,
     (1-6C) alkoxycarbonyl, etc.; addnl. details are given in the claims.
     ICM A61K031-517
     ICS C07D405-12; C07D405-14
     28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 1, 63
     75-26-3, 2-Bromopropane 78-77-3, 1-Bromo-2-methylpropane
                                                                    98-59-9,
     4-Toluenesulfonyl chloride 106-96-7, Propargyl bromide
                                                                 107-19-7,
                       109-01-3, N-Methylpiperazine
                                                        109-70-6,
     Propargyl alcohol
     1-Bromo-3-chloropropane 110-85-0, Piperazine, reactions .110-91-8,
                             111-95-5 115-19-5, 2-Methyl-3-butyn-2-ol
    Morpholine, reactions
     156-87-6, 3-Aminopropanol
                                274-09-9, Benzodioxole 288-13-1, Pyrazole
     303-38-8, 2,3-Dihydroxybenzoic acid 348-62-9, 4-Chloro-2-fluorophenol
     453-20-3, 3-Hydroxytetrahydrofuran 536-74-3, Phenylacetylene 627-18-9
                                    627-41-8, Methyl propargyl ether
     627-30-5, 3-Chloropropan-1-ol
     628-33-1, 3-Ethoxyprop-1-yne
                                     766-61-0, 1-(2-Propyn-1-yl)pyrrolidin-2-one
     1066-54-2, Trimethylsilylacetylene 1120-90-7, 3-Iodopyridine
     1945-84-2, 2-Ethynylpyridine 2028-63-9, 3-Butyn-2-ol
                                                               2117-11-5,
     4-Pentyn-2-ol
                     2516-33-8, Cyclopropylmethanol
                                                       3637-61-4,
     Cyclopentanemethanol 4045-24-3, 4-Methoxypiperidine 4360-63-8,
                                   4441-30-9, 3-(Morpholin-4-yl)propan-1-ol
     2-Bromomethyl-1,3-dioxolane
     4595-60-2, 2-Bromopyrimidine 5382-16-1, 4-Hydroxypiperidine
                                                                       5625-67-2,
     Piperazin-2-one 6457-49-4, 4-Piperidinemethanol
                                                           6482-24-2,
     2-Bromoethyl methyl ether
                                6485-55-8, cis-2,6-Dimethylmorpholine
     6940-78-9, 1-Bromo-4-chlorobutane 7223-38-3, 1-Dimethylamino-2-propyne
     7693-46-1, 4-Nitrophenyl chloroformate 7755-92-2, 1-Formylpiperazine
    13889-98-0, 1-Acetylpiperazine 15833-61-1, Tetrahydro-3-furanmethanol 31995-08-1, 3-(2-Methoxyethoxy)prop-1-yne 32111-21-0, 3-Iodopyrazine 35161-71-8, N-Methylpropargylamine 53135-63-0, 3-Isopropoxyprop-1-yne
     57260-71-6, tert-Butyl 1-piperazinecarboxylate 60547-98-0,
     2-Amino-4-benzyloxy-5-methoxybenzamide 68832-13-3, (R)-(-)-2-
     Pyrrolidinemethanol 76003-29-7, tert-Butyl 3-oxopiperazine-1-carboxylate
     77378-24-6, Prop-2-ynyloxyacetyl chloride
                                                 89031-84-5,
     (3-Bromopropoxy)-tert-butyldimethylsilane
                                                  98027-52-2,
                    -1H-pyrazole 145943-75-5, 3-(4-Acetylpiperazin-1-
263400-68-6, 4-Chloro-6-methoxyquinazolin-7-ol
     1-Acetyl-4-iodo-1H-pyrazole
    yl)propan-1-ol
     263400-80-2, 6-Methoxy-7-[2-(morpholin-4-y1)ethoxy]-4-
                                      264208-72-2, 4-Chloro-6-methoxy-7-[(1-
     (pentafluorophenoxy) quinazoline
     methylpiperidin-4-yl)methoxy]quinazoline
                                                288383-30-2,
     4-Chloro-7-[3-(1,1-dioxido-4-thiomorpholinyl)propoxy]-6-methoxyquinazoline
     379229-33-1, 4-0xo-5-[(tetrahydro-2H-pyran-4-yl)oxy]-3,4-dihydroquinazolin-
                    379229-61-5, 7-Benzyloxy-5-hydroxy-3-[(pivaloyloxy)methyl]-
     7-yl acetate
     3,4-dihydroquinazolin-4-one 379229-70-6, 7-Methoxy-5-[(tetrahydro-2H-
                                           401811-78-7, 5-Bromo-1,3-benzodioxol-
    pyran-4-yl)oxy]quinazolin-4(3H)-one
             408304-92-7, 4-Nitrophenyl (2-propyn-1-yl)carbamate
     492444-04-9, 5-Fluoro-1,3-benzodioxol-4-amine
                                                     643086-58-2,
     2-(2-Fluoroethyl)piperazine
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of benzodioxole-containing quinazolines with MAP kinase
inhibitory
        activity for treatment of cancer)
     1668-84-4P, 1,3-Benzodioxol-4-amine
                                            2411-83-8P, Methyl
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5317-33-9P, 1-(3-Hydroxypropyl)-4-methylpiperazine
2,3-dihydroxybenzoate
5768-39-8P, 2,3-Methylenedioxybenzoic acid 6126-10-9P,
1-[(4-Methylphenyl)sulfonyl]-1H-pyrazole 7228-38-8P,
5-Chloro-1,3-benzodioxole
                          7357-67-7P, 3-(Morpholino)propyl chloride
13790-39-1P, 4-Chloro-6,7-dimethoxyquinazoline
                                                18857-02-8P,
3-Methoxybut-1-yne
                    33842-16-9P, Methyl 2,3-methylenedioxybenzoate
36678-08-7P, 4-Methoxybut-1-yne
                                  52829-73-9P, 1-Methyl-3-(2-propyn-1-
yl)urea
          59702-07-7P, 1-Methylpiperazin-2-one
                                                105922-68-7P,
3-(Propargyloxy)tetrahydrofuran 111081-10-8P, tert-Butyl
(2,3-methylenedioxyphenyl)carbamate 124868-71-9P, [(Prop-2-yn-1-
yloxy)methyl]cyclopentane 134595-50-9P, 1,1,3-Trimethyl-3-(2-propyn-1-
         142169-20-8P, 5-Iodo-1-[(4-methylphenyl)sulfonyl]-1H-pyrazole
162364-72-9P, 7-Benzyloxy-4-chloro-6-methoxyquinazoline
                                                         179688-01-8P,
7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one
                                                    184042-58-8P,
4-(2-Fluoroethyl)piperazine-1-carboxylic acid tert-butyl ester
193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline
                                                           193001-56-8P,
7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-80-8P,
7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline
196194-45-3P, 4-Chloro-7-(2-methoxyethoxy)-6-methoxyquinazoline
196194-61-3P, 6-Methoxy-7-[3-(morpholin-4-yl)propoxy]-4-phenoxyquinazoline
196194-62-4P, 6-Methoxy-7-[3-(morpholin-4-yl)propoxy]-3,4-
dihydroquinazolin-4-one 196195-13-8P, 4-Chloro-6-methoxy-7-[3-(morpholin-
                         196308-33-5P, 7-Iodo-1,3-benzodioxol-4-amine
4-yl)propoxy]quinazoline
264208-53-9P, 6-Methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]-3,4-
dihydroquinazolin-4-one
                          264208-55-1P, 4-Chloro-6-methoxy-7-[3-(4-
methylpiperazin-1-yl)propoxy]quinazoline
                                           288384-72-5P,
3-(4-Methylpiperazin-1-yl)propyl 4-toluenesulfonate 288384-73-6P
, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6-methoxyquinazoline
trifluoroacetate 288384-74-7P, 4-(4-Chloro-2-fluorophenoxy)-6-
methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinazoline
                                                          331809-40-6P,
4-Chloro-7-(3-chloropropoxy)-6-methoxyquinazoline 379228-45-2P,
5-Chloro-1,3-benzodioxol-4-amine
                                 379229-72-8P, 4-Chloro-5-[(tetrahydro-
2H-pyran-4-yl)oxy]quinazolin-7-ol
                                   379229-83-1P, 5-Chloro-1,3-
                                379229-84-2P, tert-Butyl
benzodioxole-4-carboxylic acid
(5-chloro-1, 3-benzodioxol-4-yl) carbamate
                                           492444-15-2P,
5-Chloro-7-iodo-1,3-benzodioxol-4-amine
                                          574745-71-4P,
7-[3-(4-Acetylpiperazin-1-yl)propoxy]-4-chloro-6-methoxyquinazoline
574745-91-8P, 1-(2-Fluoroethyl)piperazine bis(trifluoroacetate) 574745-95-2P, 3-[4-(2-Fluoroethyl)piperazin-1-yl]propan-1-ol
574746-07-9P, 4-Chloro-7-[3-[4-(2-fluoroethyl)piperazin-1-yl]propoxy]-6-
                     642493-66-1P, 5-Chloro-7-(3-methoxyprop-1-ynyl)-1,3-
methoxyquinazoline
                      643083-06-1P, N-(7-Iodo-1,3-benzodioxol-4-yl)-6-
benzodioxol-4-amine
methoxy-7-[3-(morpholin-4-yl)propoxy]quinazolin-4-amine
                                                          643083-21-0P,
5-Fluoro-7-(3-methoxy-1-propyn-1-yl)-1,3-benzodioxol-4-amine
643083-24-3P, 4-Amino-5-fluoro-7-iodo-1,3-benzodioxole
                                                         643083-35-6P,
5-Chloro-7-(4-methoxy-1-butyn-1-yl)-1,3-benzodioxol-4-amine
643083-39-0P, 5-Fluoro-7-(4-methoxy-1-butyn-1-yl)-1,3-benzodioxol-4-amine
643083-43-6P, 5-Chloro-7-(3-ethoxy-1-propyn-1-yl)-1,3-benzodioxol-4-amine
643083-47-0P, 5-Chloro-7-[3-(2-methoxyethoxy)-1-propyn-1-yl]-1,3-
benzodioxol-4-amine 643083-52-7P, 5-Chloro-7-(3-isopropoxy-1-propyn-1-
                             643083-57-2P, 5-Chloro-7-[3-
yl)-1,3-benzodioxol-4-amine
(cyclopropylmethoxy) -1-propyn-1-yl] -1,3-benzodioxol-4-amine
643083-59-4P, [(Prop-2-yn-1-yloxy)methyl]cyclopropane
                                                        643083-63-0P,
N-[5-Chloro-7-(4-methoxy-1-butyn-1-yl)-1,3-benzodioxol-4-yl]-7-(3-
chloropropoxy) -6-methoxyquinazolin-4-amine 643083-70-9P,
N-[3-(7-Amino-6-chloro-1,3-benzodioxol-4-yl)-2-propyn-1-yl]morpholine-4-
              643083-75-4P, N-(2-Propyn-1-yl)morpholine-4-carboxamide
carboxamide
643083-80-1P, 3-[3-(7-Amino-6-chloro-1,3-benzodioxol-4-yl)-2-propyn-1-yl]-
1,1-dimethylurea 643083-82-3P, 1,1-Dimethyl-3-(2-propyn-1-yl)urea
643083-86-7P, 1-[3-(7-Amino-6-chloro-1,3-benzodioxol-4-yl)-2-propyn-1-yl]-
```

643084-18-8P, N-(5-Chloro-7-iodo-1,3-benzodioxol-4-yl)-6-3-methylurea methoxy-7-[3-(morpholin-4-yl)propoxy]quinazolin-4-amine 643084-24-6P, 4-Nitrophenyl N-(methyl)-N-(prop-2-yn-1-yl)carbamate 643084-32-6P, 4-[3-[[4-[(5-Chloro-7-iodo-1,3-benzodioxol-4-yl)amino]-6-methoxyquinazolin-7-yl]oxy]propyl]-1-methylpiperazin-2-one 643084-34-8P, N-(5-Chloro-7-iodo-1,3-benzodioxol-4-yl)-7-(3-chloropropoxy)-6methoxyquinazolin-4-amine 643084-38-2P, 1-[3-[(4-Chloro-6methoxyquinazolin-7-yl)oxy]propyl]-4-methylpiperazin-2-one 643084-40-6P, tert-Butyl 4-[3-[(tert-butyldimethylsilyl)oxy]propyl]-3-oxopiperazine-1-643084-42-8P, 1-(3-Hydroxypropyl)piperazin-2-one carboxylate 643084-44-0P, 1-(3-Hydroxypropyl)-4-methylpiperazin-2-one 643084-52-0P, 5-Chloro-7-(4-methoxy-1-pentyn-1-yl)-1,3-benzodioxol-4-amine 643084-54-2P, 4-Methoxypent-1-yne 643084-60-0P, 5-Chloro-7-[(pyridin-2-yl)ethynyl]-1,3-benzodioxol-4-amine 643084-64-4P, N-(5-Chloro-7-iodo-1,3benzodioxol-4-yl)-7-[3-(cis-2,6-dimethylmorpholin-4-yl)propoxy]-6methoxyquinazolin-4-amine 643084-72-4P, 4-Chloro-7-ethoxy-6-643084-76-8P, 4-Chloro-7-isopropoxy-6methoxyquinazoline 643084-83-7P, 4-Chloro-7-isobutoxy-6-643084-87-1P, 7-(4-Chlorobutoxy)-N-[5-chloro-7-(3methoxyquinazoline methoxyquinazoline methoxy-1-propyn-1-yl)-1,3-benzodioxol-4-yl]-6-methoxyquinazolin-4-amine 643084-89-3P, 4-Chloro-7-(4-chlorobutoxy)-6-methoxyquinazoline 643084-97-3P, 7-(2-Chloroethoxy)-N-[5-chloro-7-(3-methoxy-1-propyn-1-yl)-1,3-benzodioxol-4-yl]-6-methoxyquinazolin-4-amine 643084-99-5P, 4-Chloro-7-(2-chloroethoxy)-6-methoxyquinazoline 643085-21-6P, 3-[(Propargyloxy)methyl]tetrahydrofuran 643085-27-2P, 2-[(Propargyloxy)methyl]-1,3-dioxolane 643085-35-2P, 5-Chloro-7-[(pyridin-3-yl)ethynyl]-1,3-benzodioxol-4-amine 643085-39-6P, 5-Chloro-7-[(trimethylsilyl)ethynyl]-1,3-benzodioxol-4-amine 643085-43-2P, 5-Chloro-7-ethynyl-1,3-benzodioxol-4-amine 643085-51-2P, N-(5-Chloro-7-ethynyl-1,3-benzodioxol-4-yl)-6-methoxy-7-[3-(morpholin-4yl)propoxy]quinazolin-4-amine 643085-68-1P, 7-(3-Chloropropoxy)-N-[5chloro-7-[(pyridin-2-yl)ethynyl]-1,3-benzodioxol-4-yl]-6-methoxyquinazolin-643085-73-8P, N-(5-Chloro-7-iodo-1,3-benzodioxol-4-yl)-6,7dimethoxyquinazolin-4-amine 643085-78-3P, N-[5-Chloro-7-(3-isopropoxy-1propyn-1-yl)-1,3-benzodioxol-4-yl]-7-(3-chloropropoxy)-6-methoxyquinazolin-643085-83-0P, N-[5-Chloro-7-[[1-[(4-methylphenyl)sulfonyl]-1Hpyrazol-5-yl]ethynyl]-1,3-benzodioxol-4-yl]-6-methoxy-7-[3-(morpholin-4vl)propoxylguinazolin-4-amine 643085-96-5P, 4-(7-Amino-6-chloro-1,3benzodioxol-4-yl)-2-methyl-3-butyn-2-ol 643086-00-4P, 2-[[3-(7-Amino-6-chloro-1,3-benzodioxol-4-yl)-2-propyn-1-yl]oxy]-Nmethylacetamide 643086-02-6P, N-Methyl-2-(prop-2-yn-1-yloxy)acetamide 643086-08-2P, 2-[[3-(7-Amino-6-chloro-1,3-benzodioxol-4-yl)-2-propyn-1yl]oxy]-N,N-dimethylacetamide 643086-11-7P, N,N-Dimethyl-2-(prop-2-yn-1-yloxy)acetamide 643086-17-3P, 5-Chloro-7-(3-methoxy-1-butyn-1-yl)-1,3benzodioxol-4-amine 643086-26-4P, [5-Bromo-7-(3-methoxy-1-propyn-1-yl)-1,3-benzodioxol-4-yl]amine 643086-28-6P, 5-Bromo-7-iodo-1,3-benzodioxol-643086-35-5P, N-[5-Bromo-7-(3-methoxy-1-butyn-1-yl)-1,3benzodioxol-4-yl]-7-(3-chloropropoxy)-6-methoxyquinazolin-4-amine 643086-37-7P, 5-Bromo-7-(3-methoxy-1-butyn-1-yl)-1,3-benzodioxol-4-amine 643086-43-5P, N-[5-Bromo-7-(3-methoxy-1-propyn-1-yl)-1,3-benzodioxol-4-yl]-7-(3-chloropropoxy)-6-methoxyguinazolin-4-amine 643086-62-8P, 4-Chloro-7-[3-(morpholin-4-yl)propoxy]-5-[(tetrahydro-2H-pyran-4yl)oxy]quinazoline 643086-67-3P, 4-Chloro-7-methoxy-5-[(tetrahydro-2Hpyran-4-yl)oxy]quinazoline 643086-72-0P, N-(5-Chloro-7-iodo-1,3benzodioxol-4-yl)-5-isopropoxy-7-[3-(morpholin-4-yl)propoxy]quinazolin-4-643086-74-2P, 7-Benzyloxy-5-isopropoxy-3,4-dihydroquinazolin-4-one 643086-75-3P, 7-Hydroxy-5-isopropoxy-3,4-dihydroquinazolin-4-one 643086-77-5P, 7-Acetoxy-5-isopropoxy-3,4-dihydroquinazolin-4-one 643086-78-6P, 4-[(5-Chloro-7-iodo-1,3-benzodioxol-4-yl)amino]-5isopropoxyquinazolin-7-ol 643086-80-0P, N-[(5-Chloro-7-iodo-1,3-

benzodioxol-4-yl)amino]-7-(3-chloropropoxy)-5-isopropoxyquinazolin-4-amine 643086-81-1P, N-(5-Chloro-7-iodo-1,3-benzodioxol-4-yl)-7-(3-chloropropoxy)-5-isopropoxyquinazolin-4-amine 643086-87-7P, N-[5-Chloro-7-(3-methoxy-1propyn-1-yl)-1,3-benzodioxol-4-yl]-7-(3-chloropropoxy)-5isopropoxyquinazolin-4-amine 643086-96-8P, 5-Chloro-7-(3-methoxy-3methyl-1-butyn-1-yl)-1,3-benzodioxol-4-amine RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of benzodioxole-containing quinazolines with MAP kinase inhibitory activity for treatment of cancer) 263400-80-2, 6-Methoxy-7-[2-(morpholin-4-yl)ethoxy]-4-ΙT (pentafluorophenoxy) quinazoline RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzodioxole-containing quinazolines with MAP kinase inhibitory activity for treatment of cancer) 263400-80-2 CAPLUS RN Quinazoline, 6-methoxy-7-[2-(4-morpholinyl)ethoxy]-4-(pentafluorophenoxy)-CN (9CI) (CA INDEX NAME)

IT 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6 methoxyquinazoline 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7 hydroxy-6-methoxyquinazoline trifluoroacetate 288384-74-7P,
 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1 yl)propoxy]quinazoline
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of benzodioxole-containing quinazolines with MAP kinase
inhibitory
 activity for treatment of cancer)
RN 193001-80-8 CAPLUS
CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy) (9CI) (CA INDEX NAME)

288384-73-6 CAPLUS RN

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-, CNmono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 193001-79-5

CMF C15 H10 C1 F N2 O3

CM

76-05-1 CRN CMF C2 H F3 O2

CO<sub>2</sub>H

RN

288384-74-7 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CN piperazinyl)propoxy] - (9CI) (CA INDEX NAME)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:434555 CAPLUS

DOCUMENT NUMBER: 139:22225

TITLE: Preparation of quinazoline compounds for the treatment

of T cell mediated diseases

INVENTOR(S): Moore, Nelly Corine; Oldham, Keith

PATENT ASSIGNEE(S): Astrazeneca A.B., Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KI					ND :	DATE			A.	PPLI	CATI	ои ис	o. :	DATE				
									_				- <del>-</del>					
WO	WO 2003045943 A				A1 20030605					20	02-G	B518	2 20021120					
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	
		MD,	RU,	ТJ,	TM													
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑT,	BE,	BG,	
		CH,	CY,	CZ,	DΕ,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	
		PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	
		ΝE,	SN,	TD,	TG													
PRIORIT	PRIORITY APPLN. INFO.:					GB 2001-28122 A 20011123												
OTHER SOURCE(S):					MARPAT 139:22225													
C.T.																		

GI

$$(R^1)_{\mathfrak{m}}$$

$$N$$

$$I$$

$$MeO$$

$$N$$

$$N$$

$$I$$

$$MeO$$

$$N$$

$$N$$

$$N$$

$$N$$

- Quinazoline derivs. of formula I [Z = O, S, SO, SO2, (substituted) CH2; R1 AΒ = halo, CF3, CN, nitro, OH, SH, NH2, CHO, alkanoyloxy, heterocyclylalkyloxy, etc.; m = 0-3] are prepared for use in the prevention or treatment of T cell mediated diseases or medical conditions in a warm-blooded animal. Thus, II was prepared and tested for enzyme p56lck inhibition, T cell proliferation inhibition, skin graft rejection inhibition and anti-arthritic activity.
- IC ICM C07D405-12
  - ICS C07D405-06; C07D405-14; A61K031-517; A61P037-02
- 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC Section cross-reference(s): 1, 63
- 7357-67-7P 69393-72-2P, 1,3-Benzodioxol-4-ol IT 5317-33-9P 82299-36-3P 123855-51-6P 142851-03-4P 166815-96-9P 179688-01-8P 193001-55-7P 193001-56-8P 193001-80-8P 193002-24-3P 193002-25-4P 196194-61-3P 196194-62-4P 196195-13-8P 199327-69-0P 199327-71-4P 199327-72-5P 199327-73-6P 199327-74-7P 199327-75-8P 264208-53-9P 264208-55-1P 264208-58-4P 264208-60-8P 264208-63-1P 264208-66-4P 264208-69-7P 264208-72-2P 288383-71-1P 288383-72-2P 288383-73-3P 288384-72-5P 288384-73-6P 288384-74-7P 288383-74-4P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
  - (Reactant or reagent)
    - (preparation of quinazoline compds. for treatment of T cell mediated diseases)
- IT193001-80-8P 288384-73-6P 288384-74-7P
  - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
    - (preparation of quinazoline compds. for treatment of T cell mediated diseases)
- RN
- 193001-80-8 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-CN (9CI) (CA INDEX NAME)

288384-73-6 CAPLUS

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-, CNmono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 193001-79-5 CMF C15 H10 Cl F N2 O3

CM

76-05-1 CMF C2 H F3 O2

RN

288384-74-7 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:434373 CAPLUS

DOCUMENT NUMBER:

139:6886

TITLE:

Preparation of quinazoline derivatives for the

treatment of T cell mediated diseases

INVENTOR(S):

Moore, Nelly Corine; Oldham, Keith

PATENT ASSIGNEE(S):

Astrazeneca A.B., Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 217 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	ND :	DATE			, A	PPLI	CATI	ON NO	ο.	DATE							
							-										
WO 2003	WO 2003045395			A1 20030605			W	20	02-G	B522	2 20021120						
W:	AE, AG	, AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,		
	CO, CR	, CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
	GM, HR	, HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,		
	LS, LT	, LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	ΝZ,	OM,	PH,		
	PL, PT	, RO,	RU,	SC,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,		
	TZ, UA	, UG,	US,	UΖ,	VC,	VN,	ΥU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,		
	MD, RU	, TJ,	TM	2	-						•						
RW:	GH, GM	, KE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	ВG,		
	CH, CY	, CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,		
•	PT, SE	, SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,		
	NE, SN	, TD,	TG														
PRIORITY APP				(	GB 2	001-	2810	8	Α	2001	1123						
OTHER SOURCE	MARPAT 139:6886																
CT																	

GI

$$Q^1$$
 $Z$ 
 $N$ 
 $N$ 
 $R^2$ 
 $R^3$ 
 $R^2$ 
 $R^2$ 
 $R^2$ 
 $R^2$ 

Title compds. I [m = 0-3; R1 = halo, CF3, CN, NO2, etc.; R2 = H, alkyl; R3 = H, alkyl; Z = bond, O, SO0-2, amino, etc.; Q1 = aryl(alkyl), cycloalkyl, cycloalkenyl, heteroaryl, etc.; Q2 = phenyl] are prepared For instance, 4-[[2-chloro-5-ethoxyphenyl]amino]-5-hydroxy-7-methoxyquinazoline (preparation given) was coupled to 4-(3-hydroxypropyl)morpholine (CH2Cl2, Ph3P, t-BuO2C-N=N-CO2Bu-t) to give II. I are useful for the prevention or treatment of T cell mediated diseases.

II

IC ICM A61K031-505

ICS C07D239-94; A61P037-06

- CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
  Section cross-reference(s): 1
- 379228-47-4P, 4-[[2-Bromo-5-methoxyphenyl]amino]-7-methoxy-5-[[1-IT methylpiperidin-4-yl]oxy]quinazoline 379228-61-2P, 4-[[5-Chloronaphthalen-1-yl]amino]-7-methoxy-5-[[1-methylpiperidin-4yl]oxy]quinazoline dihydrochloride 379228-79-2P, 4-[[2-Bromo-5methoxyphenyl]amino]-5-[[piperidin-4-yl]methoxy]quinazoline 379228-84-9P, 4-[[2-Chloro-5-methoxyphenyl]amino]-5,7-di(3morpholinopropoxy) quinazoline 379228-86-1P, 4-[[2-Chloro-5methoxyphenyl]amino]-7-hydroxy-5-(3-(pyrrolidinyl)propoxy)quinazoline 379229-51-3P, 7-Ethoxy-5-[[4-piperidinyl]oxy]-4-[[6-chloro-2,3methylenedioxyphenyl]amino]quinazoline 379229-52-4P, 7-Isobutoxy-5-[[4-piperidinyl]oxy]-4-[[6-chloro-2,3methylenedioxyphenyl]amino]quinazoline 379229-53-5P, 7-(2-Fluoroethoxy)-5-[[4-piperidinyl]oxy]-4-[[6-chloro-2,3methylenedioxyphenyl]amino]quinazoline 379229-89-7P, 4-[[2,6-Dichlorophenyl]amino]-7-methoxy-5-[[1-methylpiperidin-4yl]oxy]quinazoline dihydrochloride 379229-92-2P, (R)-4-[[2-Chloro-5methoxyphenyl]amino]-7-(2-hydroxy-3-morpholinopropoxy)-5-[[tetrahydropyran-4-yl]oxy]quinazoline 379229-94-4P, (R)-4-[[2-Chloro-5methoxyphenyl]amino]-7-[2-hydroxy-3-(4-methylpiperazin-1-yl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]quinazoline 379229-97-7P, 4-[[2-Chloro-5-methoxyphenyl]amino]-7-hydroxy-5-[[tetrahydrofuran-3yl]oxy]quinazoline 379229-99-9P, 4-[[2-Chloro-5-methoxyphenyl]amino]-7-

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hydroxy-5-isopropoxyquinazoline 379230-03-2P, 4-(3-Chlorobenzofuran-7-
ylamino) -7 - [3 - (4-methylpiperazin-1-yl)propoxy] -5 - [[tetrahydropyran-4-
                                   379230-04-3P, 4-[[2,4-Dichloro-5-
yl]oxy]quinazoline dihydrochloride
methoxyphenyl]amino]-7-(3-(piperazinyl)propoxy)-5-[[tetrahydropyran-4-
yl]oxy]quinazoline dihydrochloride 379230-06-5P, 4-[[2,4-Dichloro-5-
methoxyphenyl]amino]-7-piperidin-4-ylmethoxy-5-[[tetrahydropyran-4-
                     379230-08-7P, 4-[[6-Chloro-2,3-
yl]oxy]quinazoline
methylenedioxyphenyl]amino]-7-fluoro-5-[[piperidin-4-yl]oxy]quinazoline
                 379230-13-4P, 4-[[6-Chloro-2,3-
dihydrochloride
methylenedioxyphenyl]amino]-5-[[piperidin-4-yl]oxy]quinazoline
                 379230-17-8P, 4-[[6-Chloro-2,3-
dihydrochloride
methylenedioxyphenyl]amino]-7-methoxy-5-[[piperidin-4-yl]oxy]quinazoline
379230-22-5P, 4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-5-[[piperidin-4-
yl]oxy]-7-(2,2,2-trifluoroethoxy)quinazoline 379230-26-9P,
4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-7-isopropoxy-5-[[1-
methylpiperidin-4-yl]oxy]quinazoline
                                     379230-27-0P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-5-[[piperidin-4-yl]methoxy]quinazoline
                 379230-29-2P, 4-[[6-Chloro-2,3-
dihydrochloride
methylenedioxyphenyl]amino]-5-[[1-methylpiperidin-4-yl]methoxy]quinazoline
dihydrochloride
                 379230-32-7P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-7-(3-piperidinopropoxy)-5-[[tetrahydropyran-4-
yl]oxy]quinazoline
                    379230-34-9P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-7-piperidin-4-ylmethoxy-5-[[tetrahydropyran-4-
                    379230-36-1P, 4-[[6-Chloro-2,3-
yl]oxy]quinazoline
methylenedioxyphenyl]amino]-7-[[1-methylpiperidin-4-yl]methoxy]-5-
[[tetrahydropyran-4-yl]oxy]quinazoline 379230-37-2P,
(R)-4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-7-(2,3-epoxypropoxy)-5-
[[tetrahydropyran-4-yl]oxy]quinazoline
                                         379230-40-7P,
4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-7-[3-(4-cyanomethylpiperazin-
1-yl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]quinazoline
                                                         379230-42-9P,
4-(6-Chlorobenzofuran-7-ylamino)-7-(2-(pyrrolidinyl)ethoxy)-5-
cyclopentyloxyquinazoline dihydrochloride
                                           379230-48-5P,
4-(3-Chlorobenzofuran-7-ylamino)-7-(2-(pyrrolidinyl)ethoxy)-5-
cyclopentyloxyquinazoline dihydrochloride
                                           379230-49-6P,
4-[[2-Chloro-5-methoxyphenyl]amino]-5-(4-methylpiperazin-1-yl)-7-(2-
(pyrrolidinyl)ethoxy)quinazoline trihydrochloride
                                                   379230-54-3P,
4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-5-[[1-methylpiperidin-4-
yl]oxy]-7-(2,2,2-trifluoroethoxy)guinazoline
                                             379230-59-8P,
4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-7-ethoxy-5-[[1-
methylpiperidin-4-yl]oxy]quinazoline
                                       379230-60-1P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-7-(2-fluoroethoxy)-5-[[1-methylpiperidin-4-
yl]oxy]quinazoline
                    379230-61-2P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-7-isobutoxy-5-[[1-methylpiperidin-4-
yl]oxy]quinazoline
                   379230-62-3P, 4-[[2,3-Methylenedioxyphenyl]amino]-5-
(4-methylpiperazin-1-yl)-7-(2-(pyrrolidinyl)ethoxy)quinazoline
trihydrochloride
                   379230-63-4P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-5-morpholino-7-(2-
(pyrrolidinyl) ethoxy) quinazoline
                                  379230-67-8P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-5-phenoxyquinazoline monohydrochloride
              379230-69-0P, 7-[3-(4-Methylpiperazin-1-yl)propoxy]-5-
[[tetrahydropyran-4-y1]oxy]-4-[[2-chloro-5-methoxyphenyl]amino]quinazoline
379230-70-3P, 7-(3-Morpholinopropoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-
chloro-5-methoxyphenyl]amino]quinazoline
                                           379230-71-4P,
4-[[2-Chloro-5-methoxyphenyl]amino]-7-[2-hydroxy-3-(4-methylpiperazin-1-
yl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]quinazoline
                                                       379230-72-5P,
4-[{2-Chloro-5-methoxyphenyl]amino]-7-(2-hydroxy-3-morpholinopropoxy)-5-
[[tetrahydropyran-4-yl]oxy]quinazoline
                                         379230-74-7P
                                                        379230-75-8P,
4-[[2-Chloro-5-methoxyphenyl]amino]-7-(3-morpholinopropoxy)-5-
[[tetrahydrofuran-3-yl]oxy]quinazoline
                                         379230-76-9P,
4-(5-Chloronaphthalen-1-ylamino)-7-methoxy-5-[[1-methylpiperidin-4-
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379230-77-0P, 4-[[3-Chlorobenzofuran-7-yl]amino]-7-
yl]oxy]quinazoline
methoxy-5-[[1-methylpiperidin-4-yl]oxy]quinazoline 379230-78-1P,
7-{3-(Methanesulfonyl)propoxy]-5-[[4-piperidinyl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline 379230-79-2P, 7-Methoxy-5-[[piperidin-4-
ylmethyl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazoline
379230-80-5P, 4-[[2,4-Dichloro-5-methoxyphenyl]amino]-7-methoxy-5-[[1-
methylpiperidin-4-yl]oxy]quinazoline 379230-81-6P, 4-[[2,5-
Dimethoxyphenyl]amino]-7-methoxy-5-[[1-methylpiperidin-4-
                   379230-82-7P, 7-(2-(Pyrrolidinyl)ethoxy)-5-
yl]oxy]quinazoline
[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
                                 379230-84-9P, 7-(2-Piperidinoethoxy)-5-
methoxyphenyl]amino]quinazoline
[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
                                 379230-85-0P, 7-(2-Morpholinoethoxy)-5-
methoxyphenyl]amino]quinazoline
[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
                                 379230-86-1P, 7-[2-(4-
methoxyphenyl]amino]quinazoline
Methylpiperazinyl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
methoxyphenyl]amino]quinazoline 379230-87-2P, 7-(2-(Pyrrolidinyl)ethoxy)-
5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazolin
    379230-88-3P, 7-(2-Piperidinoethoxy)-5-[[tetrahydropyran-4-y1]oxy]-4-
[[2-bromo-5-methoxyphenyl]amino]quinazoline
                                              379230-89-4P,
7-[2-(4-Methylpiperazin-1-yl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-
bromo-5-methoxyphenyl]amino]quinazoline
                                         379230-90-7P 379230-91-8P,
(S) -7-[2-[2-(N,N-Dimethylcarbamoyl)pyrrolidin-1-yl]ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazoline
379230-92-9P, (S)-7-[2-[2-(N-Methylcarbamoyl)pyrrolidin-1-yl]ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazoline
379230-94-1P, 7-(4-Pyridylmethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-
bromo-5-methoxyphenyl]amino]quinazoline
                                        379230-95-2P
                                                         379230-96-3P,
7-(2-(Pyrrolidinyl)ethoxy)-5-[[cyclopentyl]oxy]-4-[[2-bromo-5-
                                379230-97-4P, 7-(2-(Pyrrolidinyl)ethoxy)-
methoxyphenyl]amino]quinazoline
5-[[cyclopentyl]oxy]-4-[[6-chloro-2,3-methylenedioxyphenyl]amino]quinazoli
     379230-98-5P, 4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-5-
[[piperidin-4-yl]oxy]quinazoline
                                 379230-99-6P, 4-[[6-Chloro-2,3-
methylenedioxyphenyl]amino]-7-methoxy-5-[[1-methylpiperidin-4-
                   379231-00-2P, 7-Methoxy-5-[[[piperidin-4-
yl]oxy]quinazoline
yl]methyl]oxy]-4-[[6-chloro-2,3-methylenedioxyphenyl]amino]quinazoline
379231-01-3P, 7-(2-(Pyrrolidinyl)ethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-
[[6-chloro-2,3-methylenedioxyphenyl]amino]quinazoline
                                                        379231-02-4P,
7-(3-(Pyrrolidinyl)propoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[6-chloro-2,3-
methylenedioxyphenyl]amino]quinazoline
                                        379231-03-5P,
7-[3-[4-Methylpiperazin-1-yl]propoxy]-5-[[tetrahyḍropyran-4-yl]oxy]-4-[[6-
chloro-2,3-methylenedioxyphenyl]amino]quinazoline
                                                    379231-04-6P,
7-[2-[4-Methylpiperazin-1-yl]ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[6-
chloro-2,3-methylenedioxyphenyl]amino]quinazoline
                                                   379231-05-7P,
7-(2-Piperidinoethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[6-chloro-2,3-
methylenedioxyphenyl]amino]quinazoline
                                         379231-06-8P,
7-[2-(4-Pyridyloxy)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[6-chloro-2,3-
methylenedioxyphenyl]amino]quinazoline
                                         379231-08-0P,
7-Methoxy-5-[[3-(4-methylpiperazin-1-yl)propyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                  379231-09-1P,
7-Methoxy-5-[[2-piperidinoethyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                  379231-10-4P,
7-Methoxy-5-[[3-(pyrrolidinyl)propyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                 379231-11-5P,
7-Methoxy-5-[[2-(1,2,4-triazol-1-yl)ethyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline
                                 379231-12-6P, 5-[[3-
Morpholinopropyl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazoline
dihydrochloride
                 379231-13-7P, 5-[[3-(1,1-Dioxotetrahydro-4H-1,4-thiazin-
4-yl)propyl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazoline
dihydrochloride 379231-14-8P, 5-[[2-(4-Methylpiperazin-1-yl)ethyl]oxy]-4-
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[[2-bromo-5-methoxyphenyl]amino]quinazoline dihydrochloride
379231-15-9P, 5-[[3-(4-Methylpiperazin-1-yl)propyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                 379231-16-0P,
5-[[2-[Imidazoly1]ethy1]oxy]-4-[[2-chloro-5-methoxypheny1]amino]quinazolin
                    379231-19-3P, 5-[[N-Methylpiperidin-4-yl]oxy]-4-[[2-
e dihydrochloride
chloro-5-methoxyphenyl]amino]quinazoline dihydrochloride
                                                           379231-20-6P,
5-[[N-Methylpiperidin-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                  379231-21-7P,
5-[[N-Methylpiperidin-4-yl]oxy]-4-[[2,5-dichlorophenyl]amino]quinazoline
                 379231-22-8P, 7-Methoxy-5-[[2-methoxyethyl]oxy]-4-[[2-
dihydrochloride
                                          379231-23-9P,
chloro-5-methoxyphenyl]amino]quinazoline
7-Methoxy-5-[[N-methylpyrrolidin-3-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                  379231-26-2P,
7-Methoxy-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                  379231-27-3P,
7-Methoxy-5-[[3-(pyrrolidinyl)propyl]oxy]-4-[[6-chloro-2,3-
methylenedioxyphenyl]amino]quinazoline dihydrochloride
                                                         379231-28-4P,
7-Methoxy-5-[[3-(4-methylpiperazin-1-yl)propyl]oxy]-4-[[6-chloro-2,3-
methylenedioxyphenyl]amino]quinazoline dihydrochloride
                                                         379231-29-5P,
7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-fluoro-4-chloro-5-
methoxyphenyl]amino]quinazoline dihydrochloride
                                                  379231-30-8P,
7-(2-(Pyrrolidinyl)ethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,5-
dimethoxyphenyl amino quinazoline dihydrochloride
                                                    379231-39-7P,
7-Isopropoxy-5-[[4-piperidinyl]oxy]-4-[[2-bromo-5-
                                 379231-40-0P, 7-(2-Pyridylmethoxy)-5-[[N-
methoxyphenyl]amino]quinazoline
(2-pyridylmethyl)piperidin-4-yl]oxy]-4-[[2-bromo-5-
                                  379231-41-1P, 7-[[1-Methylpiperidin-4-
methoxyphenyl]amino]quinazoline
yl]oxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline
                                  379231-42-2P, 7-(3-
(Pyrrolidinyl)propoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline
                                  379231-43-3P, 7-[3-(4-Methylpiperazin-1-
yl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline
                                  379231-45-5P, 7-[2-(2-Morpholinomethyl-5-
methylimidazol-1-yl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]guinazoline
                                  379231-46-6P, (S)-7-[3-[2-(N,N-
Dimethylcarbamoyl)pyrrolidin-1-yl]propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-
[[2-bromo-5-methoxyphenyl]amino]quinazoline 379231-49-9P,
7-(3-Morpholinopropoxy)-5-[[cyclohexyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline
                                  379231-50-2P, 7-(2-(Pyrrolidinyl)ethoxy)-
5-[[cyclopentyl]oxy]-4-[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline
379231-51-3P, 7-(3-Morpholinopropoxy)-5-[[isopropyl]oxy]-4-[[2-chloro-5-
methoxyphenyl]amino]quinazoline
                                 379231-52-4P, 7-[3-(4-Methylpiperazin-1-
yl)propoxy]-5-[[isopropyl]oxy]-4-[[2-chloro-5-
                                  379231-54-6P, 7-(2-(Pyrrolidinyl)ethoxy)-
methoxyphenyl]amino]quinazoline
5-[[tetrahydropyran-4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoli
     379231-55-7P, 7-(3-(Pyrrolidinyl)propoxy)-5-[[tetrahydropyran-4-
yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
                                                         379231-57-9P,
7-(3-Pyridylmethoxy)-5-[[4-piperidinyl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline
                                  379231-58-0P, 7-(3-
(Pyrrolidinyl)propoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
methoxyphenyl]amino]quinazoline
                                 379231-60-4P, (S)-7-[2-[2-(N-
Methylcarbamoyl)pyrrolidin-1-yl]ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-
[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline
                                                   379231-61-5P,
(S)-7-[2-[2-Carbamoylpyrrolidin-1-yl]ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-
4-[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline
                                                    379231-62-6P,
(S) -7-[2-(2-[[Morpholino]carbonyl]pyrrolidinyl)ethoxy]-5-[[tetrahydropyran-
4-y1]oxy]-4-[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline
379231-63-7P, (S)-7-[2-[2-[[4-Methylpiperazinyl]carbonyl]pyrrolidinyl]etho
xy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
methoxyphenyl]amino]quinazoline
                                  379231-64-8P, (S)-7-[2-[2-
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((Pyrrolidinyl)carbonyl)pyrrolidin-1-yl]ethoxy]-5-[[tetrahydropyran-4-
yl]oxy]-4-[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline 379231-65-9P,
(S) -7-[2-(2-[[Piperidino]carbonyl]pyrrolidin-1-yl)ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
methoxyphenyl]amino]quinazoline
                                 379231-66-0P, (R)-7-[2-[2-
Methylpyrrolidin-1-yl]ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-
dichloro-5-methoxyphenyl]amino]quinazoline
                                            379231-67-1P,
(S) -7-[2-(2-(Methoxymethyl)pyrrolidinyl)ethoxy]-5-[[tetrahydropyran-4-
yl]oxy]-4-[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline 379231-68-2P,
7-[2-(4-Pyridyloxy)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-
5-methoxyphenyl]amino]quinazoline 379231-69-3P, 7-(3-Pyridylmethoxy)-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
                                  379231-70-6P,
methoxyphenyl]amino]quinazoline
7-(4-Pyridylmethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
methoxyphenyl]amino]quinazoline 379231-71-7P, 7-[[1-Methylpiperidin-4-
yl]oxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,4-dichloro-5-
methoxyphenyl]amino]quinazoline 379231-73-9P, (S)-7-[2-(2-
[[Morpholino]carbonyl]pyrrolidin-1-yl)ethoxy]-5-[[tetrahydropyran-4-
yl]oxy]-4-[[2-bromo-5-methoxyphenyl]amino]quinazoline
                                                      379231-74-0P,
(S)-7-[2-[2-(4-Methylpiperazin-1-ylcarbonyl)pyrrolidin-1-yl]ethoxy]-5-
[[tetrahydropyran-4-y1]oxy]-4-[[2-bromo-5-methoxypheny1]amino]quinazoline
379231-75-1P, (S)-7-[2-[2-((Pyrrolidinyl)carbonyl)pyrrolidin-1-yl]ethoxy]-
5-[[tetrahydropyran-4-y1]oxy]-4-[[2-bromo-5-methoxypheny1]amino]quinazolin
    379231-76-2P, (S)-7-[2-(2-[[Piperidino]carbonyl]pyrrolidin-1-
yl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
                                 379231-77-3P, (S)-7-[2-(2-
methoxyphenyl]amino]quinazoline
Carbamoylpyrrolidin-1-yl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-
5-methoxyphenyl]amino]quinazoline 379231-78-4P, (R)-7-[2-(2-
Methylpyrrolidin-1-yl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
                                 379231-79-5P, (S)-7-[2-(2-
methoxyphenyl]amino]quinazoline
Methoxymethylpyrrolidin-1-yl)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-
bromo-5-methoxyphenyl]amino]quinazoline 379231-81-9P,
7-(3-Pyridylmethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-5-
methoxyphenyl]amino]quinazoline 379231-82-0P
                                                379231-83-1P,
7-[2-(4-Pyridyloxy)ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,3-
methylenedioxyphenyl]amino]quinazoline
                                         379231-84-2P,
7-(3-Pyridylmethoxy)-5-[[tetrahydropyran-4-y1]oxy]-4-[[2,3-
methylenedioxyphenyl]amino]quinazoline 379231-85-3P,
7-(4-Pyridylmethoxy)-5-[[tetrahydropyran-4-y1]oxy]-4-[[2,3-
methylenedioxyphenyl]amino]quinazoline
                                         379231-86-4P,
(S) -7-[2-[2-(N-Methylcarbamoyl)pyrrolidin-1-yl]ethoxy]-5-[[tetrahydropyran-
4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
                                                         379231-87-5P,
(S) -7-[2-(2-[[Morpholino]carbonyl]pyrrolidin-1-yl)ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
379231-88-6P, (S)-7-[2-[2-(4-Methylpiperazin-1-ylcarbonyl)pyrrolidin-1-
yl]ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,3-
methylenedioxyphenyl]amino]quinazoline
                                         379231-89-7P,
(S) -7-[2-[2-((Pyrrolidinyl)carbonyl)pyrrolidin-1-yl]ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
379231-90-0P, (S)-7-[2-(2-[[Piperidino]carbonyl]pyrrolidin-1-yl)ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
379231-91-1P, (S)-7-[2-(2-Carbamoylpyrrolidin-1-yl)ethoxy]-5-
[[tetrahydropyran-4-y1]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
379231-92-2P, (R)-7-[2-(2-Methylpyrrolidin-1-yl)ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
379231-93-3P, (S)-7-[2-(2-Methoxymethylpyrrolidin-1-yl)ethoxy]-5-
[[tetrahydropyran-4-yl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
379231-94-4P, 7-[2-[Piperidin-4-yl]ethoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-
[[6-chloro-2,3-methylenedioxyphenyl]amino]quinazoline 379231-95-5P,
7-(3-(Pyrrolidinyl)propoxy)-5-[[cyclopentyl]oxy]-4-[[2,3-
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379231-96-6P,
   methylenedioxyphenyl]amino]quinazoline
   7-[3-(4-Methylpiperazin-1-yl)propoxy]-5-[[cyclopentyl]oxy]-4-[[2,3-
                                           379231-97-7P,
   methylenedioxyphenyl]amino]quinazoline
   7-[2-(4-Methylpiperazin-1-yl)ethoxy]-5-[[cyclopentyl]oxy]-4-[[2,3-
                                            379231-98-8P,
   methylenedioxyphenyl]amino]quinazoline
   7-(2-Piperidinoethoxy)-5-[[cyclopentyl]oxy]-4-[[2,3-
                                            379231-99-9P,
   methylenedioxyphenyl]amino]quinazoline
    (S) -7-[2-[2-(4-Methylpiperazin-1-ylcarbonyl)pyrrolidin-1-yl]ethoxy]-5-
    [[cyclopentyl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
   379232-00-5P, 7-[[Piperidin-4-yl]methoxy]-5-[[cyclopentyl]oxy]-4-[[2,3-
                                            379232-01-6P,
   methylenedioxyphenyl]amino]quinazoline
   7-(3-(Piperazinyl)propoxy)-5-[[cyclopentyl]oxy]-4-[[2,3-
   methylenedioxyphenyl]amino]quinazoline 379232-03-8P,
   7-Methoxy-5-[[piperidin-4-ylmethyl]oxy]-4-[[2-chloro-5-
                                     379232-05-0P, 7-Methoxy-5-[[piperidin-4-
   methoxyphenyl]amino]quinazoline
                                                            379232-07-2P,
   ylmethyl]oxy] -4-[[2,5-dimethoxyphenyl]amino]quinazoline
   7-Methoxy-5-[[piperidin-4-ylmethyl]oxy]-4-[[2,5-
                                     379232-08-3P, 7-Methoxy-5-[[piperidin-4-
   dichlorophenyl]amino]quinazoline
   ylmethyl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
   379232-09-4P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2,5-
                                      379232-10-7P, 6-Methoxy-5-[[N-
   dichlorophenyl]amino]quinazoline
   methylpiperidin-4-yl]oxy]-4-[[2-chloro-5-methoxyphenyl]amino]quinazoline
   379232-11-8P, 7-[3-(4-Methylpiperazin-1-yl)propoxy]-5-[[tetrahydropyran-4-
   yl]oxy]-4-[[2,4-dichloro-5-methoxyphenyl]amino]quinazoline
                                                               379232-12-9P,
   6-[3-(4-Methylpiperazinyl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-
   chloro-5-methoxyphenyl]amino]quinazoline 379232-13-0P,
   6-[3-(4-Methylpiperazinyl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,5-
                                      379232-14-1P
   dichlorophenyl]amino]quinazoline
6-[3-(4-Methylpiperazinyl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2-bromo-
                                       379232-15-2P, 7-[3-(4-
   5-methoxyphenyl]amino]quinazoline
   Methylpiperazinyl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[4-chloro-2-
                                             379232-16-3P,
   fluoro-5-methoxyphenyl]amino]quinazoline
   7-[3-(4-Methylpiperazinyl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[4-
   bromo-2-fluorophenyl]amino]quinazoline 379232-17-4P,
   7-[3-(4-Methylpiperazinyl)propoxy]-5-[[tetrahydropyran-4-yl]oxy]-4-[[2,3-
   methylenedioxyphenyl]amino]quinazoline
                                            379232-18-5P,
   7-Hydroxy-5-[[cyclopentyl]oxy]-4-[[2,3-methylenedioxyphenyl]amino]quinazol
         379232-19-6P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2,4-
                                      379232-20-9P, 7-Methoxy-5-[[N-
   dichlorophenyl]amino]quinazoline
   methylpiperidin-4-yl]oxy]-4-[[4-bromo-2-chlorophenyl]amino]quinazoline
   379232-21-0P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-chloro-4-
                                  379232-22-1P, 7-Methoxy-5-[[N-
   cyanophenyl]amino]quinazoline
   methylpiperidin-4-yl]oxy]-4-[[2-bromo-4-fluorophenyl]amino]quinazoline
   379232-23-2P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-bromo-4-
   chlorophenyl]amino]quinazoline 379232-24-3P, 7-Methoxy-5-[[N-
   methylpiperidin-4-yl]oxy]-4-[[2,4-dibromophenyl]amino]quinazoline
   379232-26-5P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-
   bromophenyl]amino]quinazoline 379232-27-6P, 7-Methoxy-5-[[N-
   methylpiperidin-4-yl]oxy]-4-[[2-bromo-4-methylphenyl]amino]quinazoline
   379232-28-7P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-fluoro-4-
   chlorophenyl]amino]quinazoline 379232-29-8P, 7-Methoxy-5-[[N-
   methylpiperidin-4-yl]oxy]-4-[[2-fluoro-4-bromophenyl]amino]quinazoline
   379232-30-1P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-fluoro-3-
                                   379232-31-2P, 7-Methoxy-5-[[N-
    chlorophenyl]amino]quinazoline
   methylpiperidin-4-yl]oxy]-4-[[2,4-dimethoxyphenyl]amino]quinazoline
   379232-32-3P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2,3-
                                      379232-34-5P, 7-Methoxy-5-[[N-
   dimethoxyphenyl]amino]quinazoline
   methylpiperidin-4-yl]oxy]-4-[[2-methoxy-5-methylphenyl]amino]quinazoline
    379232-35-6P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-methoxy-5-
                                   379232-38-9P, 7-Methoxy-5-[[N-
    chlorophenyl]amino]quinazoline
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methylpiperidin-4-yl]oxy]-4-[[2-methoxyphenyl]amino]quinazoline 379232-40-3P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2ethoxyphenyl]amino]quinazoline 379232-42-5P, 7-Methoxy-5-[[Nmethylpiperidin-4-yl]oxy]-4-[[2-methylthiophenyl]amino]quinazoline 379232-44-7P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-acetyl-4chlorophenyl]amino]quinazoline 379232-46-9P, 7-Methoxy-5-[[Nmethylpiperidin-4-yl]oxy]-4-[[2-methyl-5-chlorophenyl]amino]quinazoline 379232-47-0P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-methyl-3chlorophenyl]amino]quinazoline 379232-49-2P, 7-Methoxy-5-[[Nmethylpiperidin-4-yl]oxy]-4-[[2-methyl-4-chlorophenyl]amino]quinazoline 379232-51-6P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-methyl-5methoxyphenyl]amino]quinazoline 379232-53-8P, 7-Methoxy-5-[[Nmethylpiperidin-4-yl]oxy]-4-[[2-isopropenylphenyl]amino]quinazoline 379232-54-9P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-(pyrrolyl) phenyl] amino] quinazoline 379232-56-1P, 7-Methoxy-5-[[Nmethylpiperidin-4-yl]oxy]-4-[[2-piperidinophenyl]amino]quinazoline 379232-57-2P, 7-(2-(Pyrrolidinyl)ethoxy)-5-[[cyclopentyl]oxy]-4-[[5methoxy-2-(pyrrolidinyl)phenyl]amino]quinazoline 379232-58-3P, 7-(2-(Pyrrolidinyl)ethoxy)-5-[[cyclopentyl]oxy]-4-[[5-methoxy-2-[[morpholino]methyl]phenyl]amino]quinazoline 379232-61-8P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2-bromo-4-chloro-6fluorophenyl]amino]quinazoline 379232-62-9P, 7-Methoxy-5-[[Nmethylpiperidin-4-yl]oxy]-4-[[4-chloro-2-trifluoromethylphenyl]amino]quina 379232-63-0P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[4cyano-2-trifluoromethylphenyl]amino]quinazoline 379232-64-1P, 7-[2-(Pyrrolidinyl)ethoxy]-5-[cyclopentyloxy]-4-[[2-bromo-4-chloro-6-379232-65-2P, 7-(2-(Pyrrolidinyl)ethoxy)fluorophenyl]amino]quinazoline 5-[[cyclopentyl]oxy]-4-[[4-chloro-2-trifluoromethylphenyl]amino]quinazolin 379232-68-5P, 7-[3-(4-Hydroxypiperidinyl)propoxy]-5-[[tetrahydropyran-4-y1]oxy]-4-[[6-chloro-2,3-methylenedioxyphenyl]amino]quinazoline 536740-35-9P, 4-[[2-Chloro-5-ethoxyphenyl]amino]-5-(3morpholinopropoxy) quinazoline 536740-37-1P, 5-[[Tetrahydropyran-4yl]oxy]-4-[[2-chloro-5-methoxyphenyl]amino]quinazoline hydrochloride 536740-38-2P, 7-(3-Morpholinopropoxy)-5-[tetrahydrofuran-3-y1]-4-[[2chloro-5-methoxyoxyphenyl]amino]quinazoline 536740-44-0P, 7-[Methoxy]-5-[[N-methylpiperidin-4-yl]oxy]-4-[[2,4-dichloro-5methoxyphenyl]amino]quinazoline dihydrochloride 536740-45-1P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-[[6-chloro-2,3methylenedioxyphenyl]amino]quinazoline dihydrochloride 536740-46-2P, 7-Fluoro-5-[[tetrahydropyran-4-yl]oxy]-4-[[6-chloro-2,3methylenedioxyphenyl]amino]quinazoline dihydrochloride 536740-47-3P 536740-49-5P 536740-50-8P, 4-[[2,3-536740-48-4P Methylenedioxyphenyl]amino]-7-methoxy-5-[[1-methylpiperidin-4ylloxy]quinazoline 536740-51-9P 536740-52-0P 536740-53-1P, 7-(3-Morpholinopropoxy)-5-[[3-(pyrrolidinyl)propyl]oxy]-4-[[2-chloro-5methoxyphenyl]amino]quinazoline 536740-54-2P, 7-[3-(4-Methylpiperazin-1yl)propoxy]-5-[[3-(pyrrolidinyl)propyl]oxy]-4-[[2-chloro-5methoxyphenyl]amino]quinazoline 536740-55-3P, 7-(2-Methoxyethoxy)-5-[[3-(pyrrolidiny1)propy1]oxy]-4-[[2-chloro-5-methoxypheny1]amino]quinazoline 536740-56-4P, 7-[2-(2-Methoxyethoxy)ethoxy]-5-[[3-(pyrrolidiny1)propy1]oxy]-4-[[2-chloro-5-methoxypheny1]amino]quinazoline 536740-62-2P, 7-Methoxy-5-[[N-methylpiperidin-4-yl]oxy]-4-536740-57-5P [[2-bromo-5-chlorophenyl]amino]quinazoline 536740-63-3P, 7-Benzyloxy-5-[[N-tert-butoxycarbonylpiperidin-4-yl]oxy]-4-[[6-chloro-2,3methylenedioxyphenyl]amino]quinazoline 536740-65-5P, 4-[[2-Iodophenyl]amino]-7-methoxy-5-[[1-methylpiperidin-4yl]oxy]quinazoline 536740-67-7P, 7-(2-(Pyrrolidinyl)ethoxy)-5-[[tetrahydropyran-4-y1]oxy]-4-[[4-chloro-2-trifluoromethylphenyl]oxy]quina 536740-68-8P, 7-(2-(Pyrrolidinyl)ethoxy)-5-[[tetrahydropyran-4yl]oxy]-4-[[2-bromo-4-chloro-6-fluorophenyl]amino]quinazoline

536740-70-2P, 4-(Benzofuran-7-ylamino)-7-methoxy-5-[[1-methylpiperidin-4-yl]oxy]quinazoline 536740-71-3P, 4-[[2-Chloro-5-methoxyphenyl]amino]-5-(4-methylpiperazin-1-yl)-7-(2-(pyrrolidinyl)ethoxy)quinazoline 536740-73-5P, 4-[[2,3-Methylenedioxyphenyl]amino]-5-(4-methylpiperazin-1-yl)-7-(2-(pyrrolidinyl)ethoxy)quinazoline RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(quinazoline derivs. for treatment of T cell mediated diseases)
IT 536740-67-7P, 7-(2-(Pyrrolidinyl)ethoxy)-5-[[tetrahydropyran-4-yl]oxy]-4-[[4-chloro-2-trifluoromethylphenyl]oxy]quinazoline
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(quinazoline derivs. for treatment of T cell mediated diseases) 536740-67-7 CAPLUS

CN Quinazoline, 4-[4-chloro-2-(trifluoromethyl)phenoxy]-7-[2-(1-pyrrolidinyl)ethoxy]-5-[(tetrahydro-2H-pyran-4-yl)oxy]- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:434346 CAPLUS

DOCUMENT NUMBER: 139:22222

TITLE: Preparation of arylamino-methoxyquinazolines for the

prevention or treatment of T cell-mediated diseases

INVENTOR(S): Moore, Nelly Corine; Oldham, Keith

PATENT ASSIGNEE(S): Astrazeneca A.B., Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 127 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND					ND :	DATE			A.	PPLI	CATI	ON NC	<b>).</b> 1	DATE					
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			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
			PI.	PT.	RO.	RU.	SC.	SD.	SE.	SG.	ST.	SK.	SL.	TJ.	TM.	TN.	TR.	TT.	

RN

TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO::

GB 2001-28109 A 20011123

OTHER SOURCE(S):

MARPAT 139:22222

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- AB Title compds. I [m, n = 0-3; R1 = halo, CF3, CN, NCO, NO2, OH, etc.; R2 = H, alkyl; R3 = halo, CF3, CN, NO2, OH, amino, carboxy, etc.] are prepared For instance, 4-chloro-6-methoxy-7-(3-morpholinopropoxy)quinazoline (preparation given) is coupled to 2,3-methylenedioxyaniline (sec-pentanol, HCl, IPA) to give II as the bis. HCl salt. I are useful for the prevention or treatment of T cell mediated diseases or medical conditions in a warm-blooded animal.
- IC ICM A61K031-00
- CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
   Section cross-reference(s): 1
- 79-30-1, Isobutyryl chloride 96-32-2, Methyl 77-77-0, Divinyl sulfone IT bromoacetate 105-36-2, Ethyl bromoacetate 107-13-1, Acrylonitrile, reactions 107-14-2, 2-Chloroacetonitrile 109-01-3, N-Methylpiperazine 109-09-1, 2-Chloropyridine 109-70-6, 1-Bromo-3-chloropropane 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-49-9, Homopiperidine 121-34-6, 4-Hydroxy-3-methoxybenzoic acid 123-75-1, Pyrrolidine, reactions 156-87-6, 3-Aminopropan-1-ol 274-09-9, Benzodioxole 303-38-8, 2,3-Dihydroxybenzoic acid 348-62-9, 4-Chloro-2-fluorophenol 504-63-2, 1,3-Propanediol 505-10-2, 3-[Methylthio]propanol 506-59-2, Dimethylamine hydrochloride 540-51-2, 2-Bromoethanol 586-95-8, 4-Hydroxymethylpyridine 590-17-0, 2-Bromoacetonitrile 617-05-0, Ethyl 4-hydroxy-3-methoxybenzoate 628-89-7, 2-[2-Chloroethoxy]ethanol 1126-09-6, Ethyl 627-18-9 piperidine-4-carboxylate 2162-31-4, 2-[[Tetrahydropyran-2-yl]oxy]ethanol 2402-78-0, 2,6-Dichloropyridine 2635-13-4, 5-Bromo-1,3-benzodioxole 2759-28-6, 1-Benzylpiperazine 2955-88-6, N-[2-Hydroxyethyl]pyrrolidine 3132-64-7, 2,3-Epoxypropyl bromide 3473-63-0 3647-69-6, 2-Morpholinoethyl chloride hydrochloride 4747-21-1, N-Isopropyl-Nmethylamine 6032-29-7, Pentan-2-ol 6719-02-4, 1H-Pyrrole-1-ethanol 7379-35-3, 4-Chloropyridine hydrochloride 7531-52-4, L-Prolinamide 7539-61-9, 3-Diisopropylaminopropan-1-ol 13790-39-1, 4-Chloro-6,7-dimethoxyquinazoline 15761-39-4, 1-[tert-Butoxycarbonyl]-L-18368-63-3, 6-Chloro-2-methylpyridine 18997-19-8, Chloromethyl pivalate 21655-48-1, cis-2,6-Dimethylpiperazine 29802-22-0, N, N-Dimethyl-L-prolinamide 29943-42-8, Tetrahydropyran-4-one 39743-20-9, 3-[Pyrrolidin-1-yl]propyl chloride 41720-98-3, (2R)-2-Methylpyrrolidine 55950-26-0, 4-Bromo-6-methoxy-1,3-benzodioxole 57260-71-6, 1-[tert-Butoxycarbonyl]piperazine 60547-98-0, 2-Amino-4-benzyloxy-5-methoxybenzamide 63126-47-6, (2S)-2-Methoxymethylpyrrolidine 79099-07-3, tert-Butyl 4-oxopiperidine-1-carboxylate 82594-80-7, 4-Methyl-1-tritylimidazole 86450-38-6, 4-[2-Hydroxyethoxy]pyridine 89151-44-0, N-tert-Butoxycarbonyl-4-[2hydroxyethyl]piperidine 106876-54-4, 2,2-Difluoro-1,3-benzodioxol-4ylamine 113826-06-5, (R)-(-)-Glycidyl tosylate 162364-72-9, 7-Benzyloxy-4-chloro-6-methoxyquinazoline 183322-18-1,

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4-Chloro-6, 7-di [2-methoxyethoxy] quinazoline 193001-79-5,
    4-[4-Chloro-2-fluorophenoxy]-7-hydroxy-6-methoxyquinazoline
                                                                     264208-86-8,
     7-[N-tert-Butoxycarbonylpiperidin-4-ylmethoxy]-6-methoxy-3-
    pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 264209-11-2,
    4-Chloro-6-methoxy-7-[3-methylsulfonylpropoxy]quinazoline
    4-Chloro-6-methoxy-7-[2-[N-methylpiperidin-4-yl]ethoxy]quinazoline
    401812-11-1, 5-Chloro-2,3-methylenedioxyaniline
                                                         401812-15-5,
     7-Benzyloxy-6-methoxy-4-[[2,3-methylenedioxyphenyl]amino]quinazoline
                     401812-16-6, 4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-
    hvdrochloride
     6-methoxy-7-[3-[piperazinyl]propoxy]quinazoline
                                                        401812-17-7,
     6-Methoxy-4-[[2,3-methylenedioxyphenyl]amino]-7-[3-
     [piperazinyl]propoxy]quinazoline 537040-22-5, 4-[[6-Chloro-2,3-
    methylenedioxyphenyl]amino]-6-methoxy-7-[piperidin-4-ylmethoxy]quinazoline
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of arylamino-methoxyquinazolines for the prevention or
        treatment of T cell-mediated diseases)
    1668-84-4P, 2,3-Methylenedioxyaniline
TΤ
                                              2058-49-3P, 3-
                                  2411-83-8P, Methyl 2,3-dihydroxybenzoate
     [Methanesulfonyl]propanol
     5317-33-9P, 1-[3-Hydroxypropyl]-4-methylpiperazine 5464-12-0P,
     1-[2-Hydroxyethyl]-4-methylpiperazine 5768-39-8P, 2,3-
                                  7228-38-8P, 5-Chloro-1,3-benzodioxole
    Methylenedioxybenzoic acid
     7357-67-7P, 3-Morpholinopropyl chloride 33842-16-9P, Methyl
                                  55276-43-2P, 1-[Methanesulfonyl]piperazine
     2,3-methylenedioxybenzoate
     58619-56-0P, 1-Cyanomethylpiperazine 71935-32-5P, 2-Cyano-4-
                             72744-56-0P, 5-Bromo-1,3-benzodioxole-4-carboxylic
    hydroxymethylpyridine
                         74360-79-5P, 1-[tert-Butoxycarbonyl]-N-methyl-L-
            74277-33-1P
    acid
                  77290-31-4P, 1-[tert-Butoxycarbonyl]-4-cyanomethylpiperazine
    prolinamide
    89151-45-1P, N-tert-Butoxycarbonyl-4-[2-[4-toluenesulfonyloxy]ethyl]piperi
            89226-14-2P, (2S)-1-[tert-Butoxycarbonyl]-2-
    piperidinocarbonylpyrrolidine
                                     89795-00-6P, 4-Hydroxy-4-[2-
                                    99177-19-2P, 3-[4-[3-
    hydroxyethyl]tetrahydropyran
    Hydroxypropyl]piperazin-1-yl]propionitrile 104472-98-2P,
     6-Chloro-2-[2-hydroxyethoxy]pyridine 111081-10-8P, tert-Butyl
     [2,3-methylenedioxyphenyl]carbamate 118546-61-5P, 1-Benzyl-4-
     [methanesulfonyl]piperazine 123855-51-6P, N-tert-Butoxycarbonyl-4-
                               132710-90-8P, 1-[tert-Butoxycarbonyl]-4-[3-
    hydroxymethylpiperidine
                               142851-03-4P, Ethyl N-tert-
    hydroxypropyl]piperazine
    butoxycarbonylpiperidine-4-carboxylate
                                               149152-54-5P,
     1-[tert-Butoxycarbonyl]-N, N-dimethyl-L-prolinamide
                                                           166815-96-9P,
    N-tert-Butoxycarbonyl-4-[4-toluenesulfonyloxymethyl]piperidine
    179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 19300
                                                                  193001-56-8P,
     7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-80-8P,
     7-Benzyloxy-4-[4-chloro-2-fluorophenoxy]-6-methoxyquinazoline
     193002-09-4P, 4-[3-Hydroxypropoxy]pyridine
                                                  193002-24-3P,
     7-Benzyloxy-6-methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
     193002-25-4P, 7-Hydroxy-6-methoxy-3-pivaloyloxymethyl-3,4-
    dihydroquinazolin-4-one 196194-61-3P, 6-Methoxy-7-[3-morpholinopropoxy]-
     4-phenoxyquinazoline 196194-62-4P, 6-Methoxy-7-[3-morpholinopropoxy]-3,4-
    dihydroquinazolin-4-one 196195-13-8P, 4-Chloro-6-methoxy-7-[3-
    morpholinopropoxy]quinazoline 198478-03-4P, 3-[4-Benzylpiperazin-1-yl]propionitrile 199327-69-0P, 4-Chloro-7-[3-[pyrrolidinyl]propoxy]-6-methoxyquinazoline 199327-71-4P, 3-Methyloxy-4-[3-
     [pyrrolidinyl]propoxy]benzoic acid hydrochloride
                                                          199327-72-5P,
     5-Methoxy-2-nitro-4-[3-[pyrrolidinyl]propoxy]benzoic acid hydrochloride
     199327-73-6P, 5-Methoxy-2-nitro-4-[3-[pyrrolidinyl]propoxy]benzamide
     199327-74-7P, 2-Amino-5-methoxy-4-[3-[pyrrolidinyl]propoxy]benzamide
                     199327-75-8P, 6-Methoxy-7-[3-[pyrrolidinyl]propoxy]-3,4-
    hydrochloride
                                205194-33-8P, 3-[1,1-Dioxotetrahydro-4H-1,4-
    dihydroquinazolin-4-one
     thiazin-4-yl]propan-1-ol 264208-53-9P, 6-Methoxy-7-[3-[4-methylpiperazin-
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1-yl]propoxy]-3,4-dihydroquinazolin-4-one
                                            264208-55-1P,
4-Chloro-7-[3-[4-methylpiperazin-1-yl]propoxy]-6-methoxyquinazoline
264208-58-4P, Ethyl 4-[N-tert-butoxycarbonylpiperidin-4-ylmethoxy]-3-
methoxybenzoate
                264208-60-8P, Ethyl 3-methoxy-4-[1-methylpiperidin-4-
ylmethoxy]benzoate
                     264208-63-1P, Ethyl 5-methoxy-4-[[1-methylpiperidin-4-
yl]methoxy]-2-nitrobenzoate
                              264208-66-4P, Ethyl 2-amino-5-methoxy-4-[[1-
methylpiperidin-4-yl]methoxy]benzoate 264208-69-7P, 6-Methoxy-7-[[1-
methylpiperidin-4-yl]methoxy]-3,4-dihydroquinazolin-4-one
                                                            264208-72-2P,
4-Chloro-7-[N-methylpiperidin-4-ylmethoxy]-6-methoxyquinazoline
288383-30-2P, 4-Chloro-7-[3-[1,1-dioxotetrahydro-4H-1,4-thiazin-4-
yl]propoxy]-6-methoxyquinazoline 288383-31-3P,
4-[4-Chloro-2-fluorophenoxy]-7-[3-[1,1-dioxotetrahydro-4H-1,4-thiazin-4-
yl]propoxy]-6-methoxyquinazoline
                                  288383-32-4P, 7-[3-[1,1-Dioxotetrahydro-
4H-1,4-thiazin-4-yl]propoxy]-6-methoxy-3,4-dihydroquinazolin-4-one
288383-71-1P, 4-Chloro-7-[3-piperidinopropoxy]-6-methoxyquinazoline
288383-72-2P, 7-[3-Bromopropoxy]-6-methoxy-3-pivaloyloxymethyl-3,4-
                        288383-73-3P, 6-Methoxy-7-[3-piperidinopropoxy]-
dihydroquinazolin-4-one
3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
                                                  288383-74-4P,
6-Methoxy-7-[3-piperidinopropoxy]-3,4-dihydroquinazolin-4-one
288384-72-5P, 3-[4-Methylpiperazin-1-yl]propyl 4-toluenesulfonate
288384-73-6P 288384-74-7P, 4-[4-Chloro-2-fluorophenoxy]-
6-methoxy-7-[3-[4-methylpiperazin-1-yl]propoxy]quinazoline
                                                            288385-87-5P,
6-Methoxy-7-piperidin-4-ylmethoxy-3-pivaloyloxymethyl-3,4-
dihydroquinazolin-4-one 288386-07-2P, 7-[2-[N-tert-
Butoxycarbonylpiperidin-4-yl]ethoxy]-6-methoxy-3-pivaloyloxymethyl-3,4-
dihydroquinazolin-4-one 349130-22-9P, 1-Benzyl-4-isobutyrylpiperazine
367272-12-6P, 7-[2,3-Epoxypropoxy]-6-methoxy-3-pivaloyloxymethyl-3,4-
dihydroquinazolin-4-one 367272-19-3P, 7-[2-Hydroxy-3-
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379229-42-2P, (2S)-1-[2-Hydroxyethyl]-2-[4-methylpiperazin-1-
                        379229-43-3P, (2S)-1-[2-Hydroxyethyl]-2-
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methylpiperazin-1-yl]ethoxy]ethoxy]-3-pivaloyloxymethyl-3,4-
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dihydroquinazolin-4-one
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methylpyridine
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[[ethoxycarbonyl]methyl]-4-hydroxypiperidine-1-carboxylate
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N-tert-Butoxycarbonyl-4-hydroxy-4-[2-hydroxyethyl]piperidine
401811-99-2P, Ethyl 2-[4-hydroxytetrahydropyran-4-yl]acetate
401812-00-8P, cis-3,5-Dimethyl-1-[3-hydroxypropyl]piperazine
401812-01-9P, cis-3,5-Dimethyl-1-[3-[triphenylmethyl]oxypropyl]piperazine
401812-02-0P, cis-3,5-Dimethyl-4-cyanomethyl-1-[3-
trityloxypropyl]piperazine 401812-03-1P, cis-3,5-Dimethyl-4-cyanomethyl-
1-[3-hydroxypropyl]piperazine 401812-04-2P, 1-[3-Hydroxypropyl]-4-
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methoxyquinazoline
methylenedioxyphenyl]amino]-6-methoxyquinazoline 401812-08-6P,
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methoxyquinazoline
[[2,3-methylenedioxyphenyl]amino]quinazoline 401812-10-0P,
(R) -4-[[6-Chloro-2,3-methylenedioxyphenyl]amino]-7-[2,3-epoxypropoxy]-6-
methoxyquinazoline
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1-[Cyanomethyl]piperazine trifluoroacetate
                                            537040-24-7P,
(2S) -1- [tert-Butoxycarbonyl] -2-morpholinocarbonylpyrrolidine
537040-25-8P, (2S)-1-[tert-Butoxycarbonyl]-2-[4-methylpiperazin-1-
ylcarbonyl]pyrrolidine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of arylamino-methoxyquinazolines for the prevention or
   treatment of T cell-mediated diseases)
193001-79-5, 4-[4-Chloro-2-fluorophenoxy]-7-hydroxy-6-
methoxyquinazoline
RL: RCT (Reactant); RACT (Reactant or reagent)
   (preparation of arylamino-methoxyquinazolines for the prevention or
   treatment of T cell-mediated diseases)
193001-79-5 CAPLUS
7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX
NAME)
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TΤ

RN

CN

RN 288383-31-3 CAPLUS
CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-7-[3-(1,1-dioxido-4-thiomorpholinyl)propoxy]-6-methoxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

288384-73-6 CAPLUS RN

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-, CNmono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 193001-79-5 CMF C15 H10 Cl F N2 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN

288384-74-7 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CNpiperazinyl)propoxy] - (9CI) (CA INDEX NAME)

L12 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:319877 CAPLUS

DOCUMENT NUMBER:

138:338162

TITLE:

Preparation of quinoline or quinazoline derivatives

inhibiting auto-phosphorylation of fibroblast growth

factor receptors

INVENTOR(S):

Miwa, Atsushi; Yoshino, Tetsuya; Osawa, Tatsushi;

Sakai, Teruyuki; Shimizu, Toshiyuki; Fujiwara,

Yasunari

PATENT ASSIGNEE(S):

Kirin Beer Kabushiki Kaisha, Japan

SOURCE:

PCT Int. Appl., 264 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KI			DATE			A.	PPLI	CATI	ON NO	٥.	DATE					
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PRIORITY APP	.:				JP 2001-319826			26	Α	2001	1017					
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OTHER SOURCE	MA	RPAT	138:	3381	62											

Ι

AB The invention provides novel compds. represented by the general formula (I) or pharmaceutically acceptable salts or solvates thereof [wherein X = CH, N; Z = O, S; Q = R10, CR11R12, CO, O, S(O)m (wherein m is 0 to 2), NHCONH (wherein R10 = H, C1-10 alkyl; R11, R12 = H, C1-6 alkylcarbonyloxy); R1, R2, R3 = H, OH, halogeno, nitro, amino, C1-6 alkyl or alkoxy or C2-6 alkenyl or alkynyl like (with the proviso that the alkyl and the alkoxy may be further substituted); R4 = H; R5, R6, R7, R8 = H, halogeno, C1-4 alkyl or alkoxy; R9 = C1-10 alkyl, (un)saturated 3- to 8-membered carbocyclic or heterocyclic group which may be substituted]. These compds. exhibit an inhibitory activity against autophosphorylation of fibroblast growth factor receptor (FGFR) family, in particular FGFR2 (Bek), can inhibit the proliferation of cancer cells through oral or i.v. administration, and are useful for the treatment of malignant tumors such as stomach cancer, brain tumor, large intestine cancer, pancreatic carcinoma, lung cancer, kidney cancer, ovarian cancer, and prostate cancer. Thus, 103 mg 1-(3,3-dimethylbutyl)-3-[2-fluoro-4-(7-hydroxy-6methoxyquinolin-4-yloxy)phenyl]urea (preparation given), 166 mg K2CO3, and 69 mg 4-(2-chloroethyl)morpholine hydrochloride were stirred in 2 mL DMF at 75-80° for 16 h to give 37% 1-(3,3-dimethylbutyl)-3-[2-fluoro-4-[6methoxy-7-(2-morpholin-4-ylethoxy)quinolin-4-yloxy]phenyl]urea (II). II and 1-(3,3-dimethylbutyl)-3-[2-chloro-4-[6-methoxy-7-[2-(2,6dimethylmorpholin-4-yl)ethoxy]quinolin-4-yloxy]phenyl]urea showed IC50 of <0.0100 and 0.0094  $\mu M$ , resp., for inhibiting the autophosphorylation of Bek prepared from human Scirrhous stomach cancer OCUM-2MD3. IC C07D215-22 C07D401-12; C07D409-12; C07D413-12; C07D417-12; C07D453-02; C07D239-88; A61K031-439; A61K031-47; A61K031-4709; A61K031-517; A61K031-5377; A61K031-496; A61K031-55; A61K031-551; A61P001-00; A61P001-18; A61P011-00; A61P013-12; A61P015-00 CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1 IT 190727-67-4P 516522-47-7P 516522-48-8P 516522-49-9P 516522-50-2P 516522-54-6P 516522-51-3P 516522-52-4P 516522-53-5P 516522-55-7P 516522-58-0P 516522-59-1P 516522-56-8P 516522-57-9P 516522-60-4P 516522-61-5P 516522-62-6P 516522-63-7P 516522-64-8P 516522-65-9P 516522-66-0P 516522-67-1P 516522-68-2P 516522-69-3P 516522-70-6P 516522-71-7P 516522-72-8P 516522-73-9P 516522-74-0P 516522-75-1P 516522-76-2P 516522-77-3P 516522-78-4P 516522-79-5P 516522-80-8P 516522-81-9P 516522-82-0P 516522-83-1P 516522-84-2P 516522-85-3P 516522-86-4P 516522-87-5P 516522-88-6P 516522-89-7P 516522-90-0P 516522-91-1P 516522-92-2P 516522-93-3P 516522-94-4P 516522-95-5P

516522-96-6P

516523-01-6P

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516523-03-8P

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516524-80-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
   (preparation of quinoline or quinazoline derivs. inhibiting
   auto-phosphorylation of fibroblast growth factor receptors as antitumor
   agents)
6100-74-9P
             23428-77-5P, 3'-Benzyloxy-4'-methoxyacetophenone
123855-51-6P, 1-tert-Butoxycarbonyl-4-(hydroxymethyl)piperidine
               286371-58-2P
                              347159-16-4P
                                              347405-65-6P
                                                             479690-02-3P
162364-72-9P
               479690-08-9P
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                                                             516526-34-4P
479690-03-4P
516526-35-5P
               516526-36-6P 516526-37-7P 516526-38-8P
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516526-49-1P
516526-54-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of quinoline or quinazoline derivs. inhibiting
   auto-phosphorylation of fibroblast growth factor receptors as antitumor
   agents)
516523-24-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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(Uses)

TT

TT

(preparation of quinoline or quinazoline derivs. inhibiting auto-phosphorylation of fibroblast growth factor receptors as antitumor agents)

516523-24-3 CAPLUS RN

Benzenamine, 4-(1,1-dimethylethyl)-N-[4-[[6-methoxy-7-[2-(4-CN morpholinyl)ethoxy]-4-quinazolinyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N - CH_2 - CH_2 - O & N \\ \hline MeO & N \\ \hline NH & \\ t-Bu & \\ \end{array}$$

#### 516526-37-7P 516526-38-8P 516526-39-9P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of quinoline or quinazoline derivs. inhibiting auto-phosphorylation of fibroblast growth factor receptors as antitumor agents)

RN

516526-37-7 CAPLUS
Benzenamine, 4-[[6-methoxy-7-(phenylmethoxy)-4-quinazolinyl]oxy]- (9CI) CN (CA INDEX NAME)

RN

516526-38-8 CAPLUS
Benzenamine, 4-(1,1-dimethylethyl)-N-[4-[[6-methoxy-7-(phenylmethoxy)-4-CN quinazolinyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

RN 516526-39-9 CAPLUS

CN 7-Quinazolinol, 4-[4-[[4-(1,1-dimethylethyl)phenyl]amino]phenoxy]-6-methoxy- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:888722 CAPLUS

DOCUMENT NUMBER: 137:384857

TITLE: Preparation of 4-anilinoquinazolines as antitumor

agents

INVENTOR(S): Hennequin, Laurent François Andre; Ple, Patrick PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent. English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE -----\_\_\_\_\_ \_ \_ \_ \_ -----WO 2002-GB2128 20020508 WO 2002092579 A1 20021121 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG PRIORITY APPLN. INFO.: EP 2001-401221 A 20010514 OTHER SOURCE(S): MARPAT 137:384857

$$R^3$$
 $N$ 
 $R^2$ 
 $N$ 
 $N$ 
 $R^2$ 
 $N$ 
 $N$ 

AB The title compds. [I; R1 = H, OH, alkoxy and R2 = hydroxyalkoxy, alkoxyalkoxy, aminoalkoxy, etc.; or R2 = H, OH, alkoxy and R1 = hydroxyalkoxy, alkoxyalkoxy, aminoalkoxy, etc.; R3 = C1, Br, I], useful as an anti-invasive agents in the containment and/or treatment of solid tumor disease, were prepared and formulated. E.g., a multi-step synthesis of I.2HCl [R1 = OMe; R2 = 3-(4-methylpiperazin-1-yl)propoxy; R3 = Cl],starting from 2-amino-4-benzyloxy-5-methoxybenzamide, was given. The biol. activity of compds. I was tested in 4 tests. Thus, the compds. I showed IC50 of 0.001-10 µM in in vitro c-Src tyrosine kinase assay.

ICM C07D239-94

ICS A61K031-505; A61P035-04

- 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC Section cross-reference(s): 1, 63
- IT 5317-33-9P, 1-(3-Hydroxypropyl)-4-methylpiperazine 3-Morpholinopropyl chloride 59557-92-5P, 2-Bromo-5-methoxyaniline 179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 19300 7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline 196194-61-3P, 6-Methoxy-7-(3-morpholinopropoxy)-4-phenoxyquinazoline 196194-62-4P, 6-Methoxy-7-(3-morpholinopropoxy)-3,4-dihydroquinazolin-4-196195-13-8P, 4-Chloro-6-methoxy-7-(3-morpholinopropoxy)quinazoline 264208-53-9P, 6-Methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]-3,4-

IC

264208-55-1P, 4-Chloro-6-methoxy-7-[3-(4dihydroquinazolin-4-one methylpiperazin-1-yl)propoxy]quinazoline 288384-72-5P 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6methoxyquinazoline trifluoroacetate salt 288384-74-7P, 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1yl)propoxy]quinazoline 476156-83-9P, 7-[3-(4-tert-Butoxycarbonylpiperazin-1-yl)propoxy]-6-methoxy-3-pivaloyloxymethyl-3,4dihydroguinazolin-4-one 476156-84-0P, 7-[3-(4-tert-Butoxycarbonylpiperazin-1-yl)propoxy]-6-methoxy-3,4-dihydroquinazolin-4-476156-85-1P, 7-[3-(4-tert-Butoxycarbonylpiperazin-1-yl)propoxy]-4chloro-6-methoxyquinazoline 476156-86-2P, 7-Benzyloxy-4-(2-chloro-5methoxyanilino)-6-methoxyquinazoline 476156-87-3P, 4-(2-Chloro-5methoxyanilino) -7-hydroxy-6-methoxyquinazoline RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 4-anilinoquinazolines as antitumor agents) 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-IT methoxyquinazoline 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7hydroxy-6-methoxyquinazoline trifluoroacetate salt 288384-74-7P, 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1yl)propoxy]quinazoline RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 4-anilinoquinazolines as antitumor agents) 193001-80-8 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-RN CN (9CI) (CA INDEX NAME)

RN 288384-73-6 CAPLUS
CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 193001-79-5 CMF C15 H10 Cl F N2 O3

CM

CRN 76-05-1 CMF C2 H F3 O2

RN

288384-74-7 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CN piperazinyl)propoxy] - (9CI) (CA INDEX NAME)

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:888720 CAPLUS

DOCUMENT NUMBER:

137:384855

TITLE:

Preparation of 4-anilinoquinazolines as antitumor

agents

INVENTOR(S): PATENT ASSIGNEE(S): Hennequin, Laurent Francois Andre; Ple, Patrick Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. WO 2002092577 **A1** 20021121 WO 2002-GB2117 20020508 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG A 20010514 EP 2001-401223 PRIORITY APPLN. INFO.: MARPAT 137:384855 OTHER SOURCE(S): GΙ

AB The title compds. [I; R1 = H, alkoxy and R2 = X1Q1 (wherein X1 = O, S, SO, etc.; Q1 = heteroaryl, heteroarylalkyl, heterocyclyl, etc.), X2R5 (wherein X2 = O, NH, Nalkyl; R5 = hydroxyalkyl, alkoxyalkyl, aminoalkyl, etc.); or R2 = H, alkoxy and R1 = X1Q1, X2R5; R3 = C1, Br, I], useful as anti-invasive agents in the containment and/or treatment of solid tumor disease, were prepared and formulated. E.g., a multi-step synthesis of I [R1 = OMe; R2 = N-methylpiperidin-4-ylmethoxy; R3 = Cl], starting from Et piperidine-4-carboxylate, was given. Biol. activity of compds. I was tested in 4 tests. Thus, the compds. I showed IC50 of 0.001-10  $\mu M$  in in vitro c-Src tyrosine kinase assay.

IC ICM C07D239-94

ICS C07D401-12; C07D403-12; C07D417-12; A61K031-505

Ι

28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC

Section cross-reference(s): 1, 63

59557-92-5P, 2-Bromo-5-IT58619-56-0P, 1-Cyanomethylpiperazine 71935-32-5P, 2-Cyano-4-hydroxymethylpyridine methoxyaniline 77290-31-4P, 1-(tert-Butoxycarbonyl)-4-cyanomethylpiperazine 123855-51-6P, N-tert-Butoxycarbonyl-4-hydroxymethylpiperidine

142851-03-4P, Ethyl N-tert-butoxycarbonylpiperidine-4-carboxylate 166815-96-9P, N-tert-Butoxycarbonyl-4-(4-toluenesulphonyloxymethyl)piperid 179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-193002-09-4P, 3-(4-Pyridyloxy)propanol methoxyquinazoline 193002-24-3P, 7-Benzyloxy-6-methoxy-3-pivaloyloxymethyl-3,4-193002-25-4P, 7-Hydroxy-6-methoxy-3dihydroquinazolin-4-one pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 199327-69-0P, 199327-71-4P, 4-Chloro-6-methoxy-7-(3-pyrrolidin-1-ylpropoxy)quinazoline 3-Methoxy-4-(3-pyrrolidin-1-ylpropoxy)benzoic acid hydrochloride 199327-72-5P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1-ylpropoxy)benzoic acid hydrochloride 199327-73-6P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1-199327-74-7P, 2-Amino-5-methoxy-4-(3-pyrrolidin-1ylpropoxy)benzamide ylpropoxy) benzamide hydrochloride 199327-75-8P, 6-Methoxy-7-(3pyrrolidin-1-ylpropoxy)-3,4-dihydroquinazolin-4-one 205194-33-8P, 3-(1,1-Dioxotetrahydro-4H-1,4-thiazin-4-yl)propan-1-ol 264208-58-4P, Ethyl 4-N-tert-butoxycarbonylpiperidin-4-ylmethoxy)-3-methoxybenzoate 264208-60-8P, Ethyl 3-methoxy-4-(1-methylpiperidin-4-ylmethoxy)benzoate 264208-63-1P, Ethyl 5-methoxy-4-(N-methylpiperidin-4-ylmethoxy)-2-nitrobenzoate 264208-66-4P, Ethyl 2-amino-5-methoxy-4-(1-methylpiperidin-4-ylmethoxy) benzoate 264208-69-7P, 6-Methoxy-7-(N-methylpiperidin-4ylmethoxy)-3,4-dihydroquinazolin-4-one 264208-72-2P, 4-Chloro-6-methoxy-7-(N-methylpiperidin-4-ylmethoxy)quinazoline 288383-30-2P, 4-Chloro-7-[3-(1,1-dioxotetrahydro-4H-1,4-thiazin-4yl)propoxy]-6-methoxyquinazoline 288383-31-3P, 4-(4-Chloro-2-fluorophenoxy)-7-[3-(1,1-dioxotetrahydro-4H-1,4-thiazin-4yl)propoxy]-6-methoxyquinazoline 288383-32-4P, 7-[3-(1,1-Dioxotetrahydro-4H-1,4-thiazin-4-yl)propoxy]-6-methoxy-3,4-dihydroquinazolin-4-one 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6methoxyquinazoline trifluoroacetate salt 288386-07-2P, 7-[2-(N-tert-Butoxycarbonylpiperidin-4-yl)ethoxy]-6-methoxy-3pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 367272-12-6P, 7-(2,3-Epoxypropoxy)-6-methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-367272-22-8P, 7-(2-Acetoxy-3-pyrrolidin-1-ylpropoxy)-4-chloro-6methoxyquinazoline 367272-24-0P, 7-(2-Acetoxy-3-piperidinopropoxy)-4-379228-98-5P, 1-(2-Hydroxyethyl)-5-methyl-2chloro-6-methoxyquinazoline morpholinomethylimidazole 379228-99-6P, Methyl 2-(5-methylimidazol-1-yl)acetate 379229-01-3P, 1-(2-Hydroxyethyl)-5-methylimidazole 379229-03-5P, 1-(2-tert-Butyldimethylsilyloxyethyl)-5-methylimidazole 379229-05-7P, 1-(2-tert-Butyldimethylsilyloxyethyl)-2-formyl-5-379229-07-9P, 1-(2-tert-Butyldimethylsilyloxyethyl)-5methylimidazole methyl-2-morpholinomethylimidazole 401811-86-7P, 7-[2-Acetoxy-3-(4cyanomethylpiperazin-1-yl)propoxy]-4-chloro-6-methoxyquinazoline 401811-87-8P, 7-[2-Acetoxy-3-(N-isopropyl-N-methylamino)propoxy]-4-chloro-401811-88-9P, 7-(N-tert-Butoxycarbonylpiperidin-4-6-methoxyquinazoline ylmethoxy)-6-methoxy-3,4-dihydroquinazolin-4-one 401811-89-0P, 7-(N-tert-Butoxycarbonylpiperidin-4-ylmethoxy)-4-chloro-6-401811-90-3P, 7-[2-(N-tert-Butoxycarbonylpiperidin-4methoxyquinazoline yl)ethoxy]-6-methoxy-3,4-dihydroquinazolin-4-one 401811-91-4P, 7-[2-(N-tert-Butoxycarbonylpiperidin-4-yl)ethoxy]-4-chloro-6-401812-12-2P, 7-(2-Hydroxy-3-piperidinopropoxy)-6methoxyquinazoline methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 476156-86-2P, 7-Benzyloxy-4-(2-chloro-5-methoxyanilino)-6-methoxyquinazoline 476156-87-3P, 4-(2-Chloro-5-methoxyanilino)-7-hydroxy-6-methoxyquinazoline 476160-44-8P, 7-(2-Hydroxy-3-piperidinopropoxy)-6-methoxy-3,4-476160-45-9P, 7-(2-Acetoxy-3-piperidinopropoxy)dihydroquinazolin-4-one 6-methoxy-3,4-dihydroquinazolin-4-one 476160-46-0P, 4-(2-Chloro-5methoxyanilino)-7-(2,3-epoxypropoxy)-6-methoxyquinazoline 476160-47-1P 476160-48-2P, 7-[2-Acetoxy-3-(N-isopropyl-N-methylamino)propoxy]-4-(2bromo-5-methoxyanilino)-6-methoxyquinazoline dihydrochloride salt

476160-49-3P, 4-(2-Chloro-5-methoxyanilino)-7-((2R)-2,3-epoxypropoxy)-6methoxyquinazoline 476160-50-6P, 4-(2-Bromo-5-methoxyanilino)-7benzyloxy-6-methoxyquinazoline 476160-51-7P, 4-(2-Bromo-5methoxyanilino)-7-hydroxy-6-methoxyquinazoline 476160-52-8P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 4-anilinoquinazolines as antitumor agents) ΙT 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6methoxyquinazoline 288383-31-3P, 4-(4-Chloro-2-fluorophenoxy)-7-[3-(1,1-dioxotetrahydro-4H-1,4-thiazin-4-yl)propoxy]-6-methoxyquinazoline 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6methoxyquinazoline trifluoroacetate salt RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 4-anilinoquinazolines as antitumor agents) 193001-80-8 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-RNCN (9CI) (CA INDEX NAME)

RN 288383-31-3 CAPLUS
CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-7-[3-(1,1-dioxido-4-thiomorpholinyl)propoxy]-6-methoxy- (9CI) (CA INDEX NAME)

RN 288384-73-6 CAPLUS
CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CRN 193001-79-5 CMF C15 H10 C1 F N2 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:849444 CAPLUS

DOCUMENT NUMBER:

137:353052

TITLE:

Arylsulfonylaminoquinazolines as tyrosine kinase

inhibitors

INVENTOR(S):

Moffat, David Festus Charles; Batchellor, Mark James;

Brookings, Daniel Christopher; Davis, Peter David

PATENT ASSIGNEE(S):

Celltech R & D Limited, UK

SOURCE:

PCT Int. Appl., 69 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: Eng FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KI	ND DATE	;	APPL	ICATION	NO.	DATE				
	<b></b>				<del>-</del>						
WO 20020875	87 A	2 2002	1107	WO 2	002-GB20	11	20020	502			
WO 20020875	87 A	.3 2003	0109								
W: AE,	AG, AL,	AM, AT,	AU, AZ,	BA, BB	, BG, BR	, BY,	BZ,	CA, (	CH,	CN,	
co,	CR, CU,	CZ, DE,	DK, DM,	DZ, EC	, EE, ES	, FI,	GB,	GD, 0	ΞE,	GH,	
GM,	HR, HU,	ID, IL,	IN, IS,	JP, KE	, KG, KF	, KR,	ΚZ,	LC,	ĹΚ,	LR,	
LS,	LT, LU,	LV, MA,	MD, MG,	MK, MN	, MW, MX	, MZ,	NO,	NZ,	, MC	PH,	

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG PRIORITY APPLN. INFO:

GB 2001-10797 A 20010502

OTHER SOURCE(S):

MARPAT 137:353052

AB Title compds. I [Ar = aryl, heteroaryl, aralkyl, heteroaralkyl, alkyl; X = N, (un) substituted CH; R = H, (un) substituted alkyl; R1 = H, halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, amino, CN; R2, R3 = (un) substituted aliphatic, cycloaliph., heterocyclic, aryl, heteroaryl; R4 = H, halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, NO2, CN, (un) substituted CO2H, SO3H, S(O)H, SO2H, OCO2H, CONH2, SH, NH2, O2CNH2, CSNH2, acyl; n = 0-2] were prepared for use to inhibit the activity of class 1 receptor tyrosine kinases in the treatment of hyperproliferative disorders such as psoriasis, cancer, restenosis, atherosclerosis, and fibrosis. Thus, 4-chloro-6-methoxy-7-morpholinopropoxyquinazoline was prepared from Et vanillate and Br(CH2) 3OH via cyclization of Et 2-amino-5-methoxy-4-morpholinopropoxybenzoate with formamide. This intermediate was treated with 2-ClC6H4SO2NH2 to give I [Ar = 2-ClC6H4, X = N, R1, R4 = H, R2 = OMe, r3 = morpholinopropoxy]. I are selective inhibitors of FGFr2 kinase with  $\leq 1 \ \mu \text{M}$ .

IC ICM A61K031-517 ICS C07D239-94; C07D403-12; C07D409-12; C07D417-12; C07D413-12; C07D409-14; C07D401-12; A61P035-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

70-55-3, 4-Methylbenzenesulfonamide 88-19-7, 2-Methylbenzenesulfonamide 98-10-2, Benzenesulfonamide 98-64-6, 4-Chlorobenzenesulfonamide IT 617-05-0, Ethyl vanillate 627-18-9, 3-Bromo-1-propanol 2-Diethylaminoethyl chloride hydrochloride 3040-44-6, 3647-69-6, 4-(2-Chloroethyl) morpholine hydrochloride 2-Piperidinoethanol 4535-85-7, 3-Diethylaminopropyl chloride hydrochloride 5464-12-0, 1-(2-Hydroxyethyl)-4-methylpiperazine 6961-82-6, 2-17260-71-8, 3-Chlorobenzenesulfonamide Chlorobenzenesulfonamide ulfonamide 20532-15-4, 20691-89-8, 1-Methylpiperidine-4-methanol 19797-32-1, 3,5-Dichlorobenzenesulfonamide 2,4-Dichlorobenzenesulfonamide 35203-91-9, 8-Quinolinesulfonamide 73542-86-6, 2 92748-09-9, 2-Bromobenzenesulfonamide **263400-70-0** 73542-86-6, 2-Cyanobenzenesulfonamide RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of arylsulfonylaminoquinazolines as tyrosine kinase inhibitors) 162438-79-1P 196194-62-4P 196195-13-8P 263400-67-5P 330999-84-3P 330999-85-4P 474526-32-4P 474526-33-5P

474526-34-6P 474526-35-7P 474526-36-8P

474526-37-9P

IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of arylsulfonylaminoquinazolines as tyrosine kinase inhibitors) 263400-70-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of arylsulfonylaminoquinazolines as tyrosine kinase inhibitors)

263400-70-0 CAPLUS RN

IT

7-Quinazolinol, 6-methoxy-4-(pentafluorophenoxy)- (9CI) (CA INDEX NAME) CN

263400-67-5P 474526-33-5P 474526-34-6P 474526-35-7P 474526-36-8P 474526-37-9P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of arylsulfonylaminoquinazolines as tyrosine kinase inhibitors)

RN

263400-67-5 CAPLUS
Quinazoline, 6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-(pentafluorophenoxy)-CN(CA INDEX NAME)

474526-33-5 CAPLUS RN

Ethanamine, N,N-diethyl-2-[[6-methoxy-4-(pentafluorophenoxy)-7quinazolinyl]oxy] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{Et_2N-CH_2-CH_2-O} & N \\ & & N \\ & &$$

RN474526-34-6 CAPLUS

1-Propanamine, 3-[[6-methoxy-4-(pentafluorophenoxy)-7-quinazolinyl]oxy]-CN N, N-dimethyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me}_2\text{N-} \text{(CH}_2)_3 - \text{O} \\ \text{MeO} \\ \end{array} \begin{array}{c} \text{N} \\ \text{F} \\ \text{F} \end{array}$$

RN

474526-35-7 CAPLUS
Quinazoline, 6-methoxy-7-[2-(4-methyl-1-piperazinyl)ethoxy]-4-CN(pentafluorophenoxy) - (9CI) (CA INDEX NAME)

Me N 
$$\sim$$
 CH<sub>2</sub>-CH<sub>2</sub>-O  $\sim$  N  $\sim$  N

RN474526-36-8 CAPLUS

CNQuinazoline, 6-methoxy-4-(pentafluorophenoxy)-7-[2-(1-piperidinyl)ethoxy]-

### (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N - CH_2 - CH_2 - O & N \\ \hline MeO & F \\ \hline F & F \end{array}$$

RN

474526-37-9 CAPLUS Quinazoline, 6-methoxy-7-[(1-methyl-4-piperidinyl)oxy]-4-(pentafluorophenoxy)- (9CI) (CA INDEX NAME) CN

L12 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:832791 CAPLUS

DOCUMENT NUMBER: 137:337908

TITLE: Preparation of antitumor quinazolines

INVENTOR(S): Ple, Patrick

Astrazeneca AB, Swed.; Astrazeneca UK Limited PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE				
WO 2002085895	A1 20021031	WO 2002-GB1734	20020415				
W: AE, AG,	AL, AM, AT, AU,	AZ, BA, BB, BG, BR, BY,	BZ, CA, CH, CN,				
CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, ES, FI,	GB, GD, GE, GH,				
GM, HR,	HU, ID, IL, IN,	IS, JP, KE, KG, KP, KR,	KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG **A**1 20040121 EP 2002-718343 20020415 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRIORITY APPLN. INFO.: EP 2001-401007 Α 20010419 WO 2002-GB1734 20020415

OTHER SOURCE(S):

MARPAT 137:337908

GI

$$\begin{bmatrix} \mathbb{R}^{1} \end{bmatrix}_{\mathbb{M}} \xrightarrow{\mathbb{N}} \mathbb{H}$$

The title compds. [I; Z=0, S, SO, etc.; m=0-3; R1=halo, CF3, CN, etc.; n=0-3; R3=halo, CF3, CN, etc.], useful in the manufacture of a AB medicament for use as an anti-invasive agent in the containment and/or treatment of solid tumor disease, were prepared Thus, a multi-step synthesis of the quinazoline II, starting from 2-amino-4-benzyloxy-5methoxybenzamide, was given. The compds. I show IC50 in the range of 0.001-10 µM in in vitro c-Src kinase assay.

IC ICM C07D405-12

ICS A61K031-517; A61P035-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1

5317-33-9P, 1-(3-Hydroxypropyl)-4-methylpiperazine IT 7357-67-7P, 3-Morpholinopropyl chloride 69393-72-2P, 2,3-Methylenedioxyphenol 82299-36-3P, 6-Bromo-2,3-methylenedioxyphenol 123855-51-6P, N-tert-Butoxycarbonyl-4-hydroxymethylpiperidine 142851-03-4P, Ethyl N-tert-butoxycarbonylpiperidine-4-carboxylate 166815-96-9P,

N-tert-Butoxycarbonyl-4-(4-toluenesulfonyloxymethyl)piperidine

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179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 19300
                                                              193001-56-8P,
7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-80-8P,
7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline
193002-24-3P, 7-Benzyloxy-6-methoxy-3-pivaloyloxymethyl-3,4-
                          193002-25-4P, 7-Hydroxy-6-methoxy-3-
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pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
                                                  196194-61-3P,
6-Methoxy-7-(3-morpholinopropoxy)-4-phenoxyquinazoline
6-Methoxy-7-(3-morpholinopropoxy)-3,4-dihydroquinazolin-4-one
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199327-69-0P, 4-Chloro-6-methoxy-7-(3-pyrrolidin-1-ylpropoxy)quinazoline 199327-71-4P, 3-Methoxy-4-(3-pyrrolidin-1-ylpropoxy)benzoic acid
hvdrochloride
                199327-72-5P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1-
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                                        199327-73-6P, 5-Methoxy-2-nitro-4-
(3-pyrrolidin-1-ylpropoxy) benzamide
                                        199327-74-7P, 2-Amino-5-methoxy-4-(3-
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                                                   199327-75-8P,
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dihydroquinazolin-4-one
methylpiperazin-1-yl)propoxy]quinazoline
                                             264208-58-4P, Ethyl
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264208-60-8P, Ethyl 3-methoxy-4-(N-methylpiperidin-4-ylmethoxy)benzoate
264208-63-1P, Ethyl 5-methoxy-4-(N-methylpiperidin-4-ylmethoxy)-2-
                264208-66-4P, Ethyl 2-amino-5-methoxy-4-(N-methylpiperidin-
nitrobenzoate
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4-ylmethoxy) benzoate
ylmethoxy) -3,4-dihydroquinazolin-4-one
                                           264208-72-2P,
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288383-72-2P, 7-(3-Bromopropoxy)-6-methoxy-3-pivaloyloxymethyl-3,4-
                           288383-73-3P, 6-Methoxy-7-(3-piperidinopropoxy)-
dihydroquinazolin-4-one
3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
                                                    288383-74-4P,
6-Methoxy-7-(3-piperidinopropoxy)-3,4-dihydroquinazolin-4-one
288384-72-5P, 3-(4-Methylpiperazin-1-yl)propyl 4-toluenesulfonate
288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6-
methoxyquinazoline trifluoroacetate salt 288384-74-7P,
4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1-
yl)propoxy]quinazoline
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of antitumor quinazolines)
193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-
methoxyquinazoline 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7-
hydroxy-6-methoxyquinazoline trifluoroacetate salt 288384-74-7P,
4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1-
yl)propoxy]quinazoline
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of antitumor quinazolines)
193001-80-8 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-
(9CI)
      (CA INDEX NAME)
```

IT

RN

CN

288384-73-6 CAPLUS RN

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME) CN

CM

CRN 193001-79-5 CMF C15 H10 Cl F N2 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN

288384-74-7 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

4

ACCESSION NUMBER:

2002:293648 CAPLUS

DOCUMENT NUMBER:

136:325554

TITLE:

Preparation of 4-(4-benzofuranylamino)quinazolines as

c-Src tyrosine kinase inhibitors

INVENTOR (S):

Lambert, Christine Marie-Paul; Ple, Patrick Astrazeneca AB, Swed.; Astrazeneca UK Limited

PATENT ASSIGNEE(S):

PCT Int. Appl., 81 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT 1	. O <i>r</i>	KIND DA													
WO 20020	030926		020418	WO 2001-GB4497 20011009											
					BG, BR, BY										
	CO, CR,	CU, CZ, D	E, DK, DM	, DZ, EC,	EE, ES, FI	, GB, GD,	GE, GH,								
	GM, HR,	HU, ID, I	L, IN, IS	, JP, KE,	KG, KP, KR	, KZ, LC,	LK, LR,								
	LS, LT,	LU, LV, M	A, MD, MG	, MK, MN,	MW, MX, MZ	, NO, NZ,	PH, PL,								
	PT, RO,	RU, SD, S	E, SG, SI	, SK, SL,	TJ, TM, TR	, TT, TZ,	UA, UG,								
	US, UZ,	VN, YU, Z	A, ZW, AM	, AZ, BY,	KG, KZ, MD	, RU, TJ,	TM								
RW:	GH, GM,	KE, LS, M	W, MZ, SD	, SL, SZ,	TZ, UG, ZW	, AT, BE,	CH, CY,								
	DE, DK,	ES, FI, F	R, GB, GR	, IE, IT,	LU, MC, NL	, PT, SE,	TR, BF,								
	BJ, CF,	CG, CI, C	M, GA, GN	, GQ, GW,	ML, MR, NE	, SN, TD,	TG								
AU 2001	092137	A5 20	020422	AU 20	01-92137	20011009									
EP 1326	B60	A1 20	030716	EP 2001-972363 20011009											
R:	AT, BE,	CH, DE, D	K, ES, FR	, GB, GR,	IT, LI, LU	, NL, SE,	MC, PT,								
	IE, SI,	LT, LV, F	I, RO, MK	CY, AL,	TR										
US 2004	044015	A1 20	040304	US 20	03-399017	20030410									
PRIORITY APP	LN. INFO.	. :		EP 2000-	402845 A	20001013									
				WO 2001-0	GB4497 W	20011009									
OTHER SOURCE GI	WO 2001-GB4497 W 20011009 OTHER SOURCE(S): MARPAT 136:325554 GI														

$$\begin{bmatrix} R^{1} \end{bmatrix}_{m}$$

AB The title compds. [I; m = 0-3; R1 = halo, CF3, CN, etc.; R2 = H, alkyl; n= 0-3; R3 = halo, CF3, CN, etc.], useful as an anti-invasive agent in the containment and/or treatment of solid tumor disease, were prepared Thus, reacting 4-chloro-6-methoxy-7-[3-(4-methylpiperazin-1yl)propoxy]quinazoline with 4-aminobenzofuran (prepns. given) in the presence of HCl/iso-PrOH afforded I.2HCl [m = 2; R1 = 6-methoxy; R1 = 7-[3-(4-methylpiperazin-1-yl)propoxy]; R2, R3 = H]. Biol. data were given. IC ICM C07D407-12 ICS C07D407-14; A61K031-495 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC Section cross-reference(s): 1 77-77-0, Divinyl sulfone 106-95-6, Allyl bromide, reactions 107-14-2, IT 2-Chloroacetonitrile 108-95-2, Phenol, reactions 109-01-3, 109-70-6, 1-Bromo-3-chloropropane 110-91-8, N-Methylpiperazine 121-34-6, 4-Hydroxy-3-methoxybenzoic acid Morpholine, reactions 140-88-5, Ethyl acrylate 156-87-6, 3-Aminopropan-1-ol 1,2,3-Triazole 348-62-9, 4-Chloro-2-fluorophenol 610 288-36-8, 610-78-6, 4-Chloro-3-nitrophenol 617-05-0, Ethyl 4-hydroxy-3-methoxybenzoate 685-87-0, Diethyl bromomalonate 1126-09-6, Ethyl 627-18-9 piperidine-4-carboxylate 3132-64-7, 2,3-Epoxypropyl bromide 18997-19-8, Chloromethyl pivalate 19438-10-9, Methyl 3-hydroxybenzoate 39743-20-9, 3-(Pyrrolidin-1-yl)propyl chloride 57260-71-6, 1-(tert-Butoxycarbonyl)piperazine 60547-98-0, 2-Amino-4-benzyloxy-5methoxybenzamide 162364-72-9, 7-Benzyloxy-4-chloro-6-methoxyquinazoline 166599-84-4, Benzofuran-4-carboxylic acid 193001-79-5 401812-12-2 401812-13-3 367272-19-3 401812-14-4 RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of 4-(4-benzofuranylamino) quinazolines as c-Src tyrosine kinase inhibitors) 7357-67-7P 58619-56-0P, 1-IT 4332-48-3P 5317-33-9P 77290-31-4P 79250-46-7P 79950-39-3P Piperazineacetonitrile 142851-03-4P 166815-96-9P 179688-01-8P 193001-55-7P 123855-51-6P 193001-56-8P 193001-80-8P 193002-24-3P 193002-25-4P 196194-62-4P 196195-13-8P 199327-69-0P 199327-71-4P 196194-61-3P 199327-72-5P 199327-73-6P 199327-74-7P 199327-75-8P 205194-33-8P 264208-55-1P 264208-58-4P 264208-60-8P 264208-63-1P 264208-53-9P 288383-30-2P 264208-69-7P 264208-72-2P 264208-66-4P 288383-32-4P 288384-72-5P 288384-73-6P 288383-31-3P 288384-74-7P 288385-51-3P, 1H-1,2,3-Triazole-1-propanol

367272-24-0P

401811-86-7P

412336-55-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

412336-45-9P

401811-82-3P

401811-87-8P

412336-57-3P

412336-47-1P

401811-83-4P

412336-05-1P

412336-59-5P

367272-12-6P

401811-84-5P

412336-49-3P 412336-61-9P

(Reactant or reagent)

367272-22-8P

401811-85-6P

412336-53-9P

412336-07-3P, 4-Benzofuranamine

(preparation of 4-(4-benzofuranylamino) quinazolines as c-Src tyrosine kinase inhibitors)

193001-79-5 IT

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of 4-(4-benzofuranylamino) quinazolines as c-Src tyrosine kinase inhibitors)

193001-79-5 CAPLUS RN

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX CNNAME)

193001-80-8P 288383-31-3P 288384-73-6P IT 288384-74-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 4-(4-benzofuranylamino) quinazolines as c-Src tyrosine kinase inhibitors)

RN

193001-80-8 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-CN (9CI) (CA INDEX NAME)

RN

288383-31-3 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-7-[3-(1,1-dioxido-4-CNthiomorpholinyl)propoxy]-6-methoxy- (9CI) (CA INDEX NAME)

288384-73-6 CAPLUS RN

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME) CN

CM

CRN 193001-79-5 CMF C15 H10 C1 F N2 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN

288384-74-7 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CNpiperazinyl)propoxy] - (9CI) (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:293646 CAPLUS

DOCUMENT NUMBER: 136:325553

TITLE: Preparation of 4-(7-benzofuranylamino)quinazolines

with antitumor activity

INVENTOR(S): Lambert, Christine Marie Paul; Ple, Patrick
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 92 pp.

CONTRACT PCT INC. Appr.,

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	KIND DATE					A.	PPLI	CATIO	ο.	DATE							
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WO :	2002	0309	24	A	A1 20020418 WO 2001-GB4498 2001							2001	1009				
WO	2002	0309:	24	C:	C2 20030522				,								
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PH,	PL,
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	ŪĠ,
		ÙS,	UΖ,	VN,	YU,	ZA,	ZW,	AM,	AZ,	BY,	KG;	KZ,	MD,	RU,	ТJ,	TM	
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZW,	AT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG	
AU	2001	0921	38	A5 20020422				AU 2001-92138 200110									
EP	1326	859		A1 20030716				EP 2001-972364 20011009									
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		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
US :	2004	0488	81	A	1	2004	0311		U	S 20	03-3	9879:	3	2003	0408		
PRIORITY	APP	LN.	INFO	. :				]	EP 2	000-4	40284	44	Α	2000	1013		
								1	WO 2	001-0	GB44:	98	W	2001	1009		
WO 2001-GB4498 W 20011009 OTHER SOURCE(S): MARPAT 136:325553 GI																	

$$\begin{bmatrix} \mathbb{R}^{1} \end{bmatrix}_{m}$$

The title compds. [I; m = 0-3; R1 = halo, CF3, CN, etc.; R2 = H, alkyl; nAB = 0-3; R3 = halo, CF3, CN, etc.], useful as anti-invasive agents in the containment and/or treatment of solid tumor disease, were prepared and formulated. Thus, reacting 4-chloro-6-methoxy-7-[3-(4-methylpiperazin-1yl) propoxy] quinazoline with 7-aminobenzofuran (prepns. given) in the presence of HCl/iso-PrOH afforded I.2HCl [m = 2; Rl = 6-MeO; Rl = 7-[3-(4-methylpiperazin-1-yl)propoxy]; R2, R3 = H]. Biol. data for compds. I (i.e., as c-Src tyrosine kinase inhibitors) were given. IC ICM C07D405-12 ICS A61K031-517; A61P035-00 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC Section cross-reference(s): 1, 63 5317-33-9P, 1-(3-Hydroxypropyl)-4-methylpiperazine IT 7357-67-7P. 58619-56-0P, 1-Cyanomethylpiperazine 3-Morpholinopropylchloride 67830-55-1P, 7-Aminobenzofuran 77290-31-4P, 1-(tert-Butoxycarbonyl)-4cyanomethylpiperazine 90322-45-5P, 5-Methoxy-7-nitrobenzofuran 90800-61-6P, 5-Methoxy-7-nitrobenzofuran-2-carboxylic acid 91396-69-9P, Ethyl 5-methoxy-7-nitrobenzofuran-2-carboxylate 104747-05-9P, 7-Amino-5-methoxybenzofuran 112270-06-1P, Ethyl 6-chloro-2hydroxybenzoate 123855-51-6P, N-tert-Butoxycarbonyl-4hydroxymethylpiperidine 142851-03-4P, Ethyl N-tertbutoxycarbonylpiperidine-4-carboxylate 166815-96-9P, N-tert-Butoxycarbonyl-4-(4-toluenesulfonyloxymethyl)piperidine 172217-11-7P, Ethyl 6-chloroanthranilate 179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 193001-56-8P, 7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline 193002-24-3P, 7-Benzyloxy-6-methoxy-3-pivaloyloxymethyl-3,4dihydroguinazolin-4-one 193002-25-4P, 7-Hydroxy-6-methoxy-3pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 196194-61-3P, 6-Methoxy-7-(3-morpholinopropoxy)-4-phenoxyquinazoline 196194-62-4P, 6-Methoxy-7-(3-morpholinopropoxy)-3,4-dihydroquinazolin-4-one 196195-13-8P, 4-Chloro-6-methoxy-7-(3-morpholinopropoxy)quinazoline 199327-69-0P, 4-Chloro-6-methoxy-7-(3-pyrrolidin-1-ylpropoxy)quinazoline 199327-71-4P, 3-Methoxy-4-(3-pyrrolidin-1-ylpropoxy)benzoic acid hydrochloride 199327-72-5P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1ylpropoxy) benzoic acid hydrochloride 199327-73-6P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1-ylpropoxy) benzamide 199327-74-7P, 2-Amino-5-methoxy-4-(3pyrrolidin-1-ylpropoxy) benzamide hydrochloride 199327-75-8P, 6-Methoxy-7-(3-pyrrolidin-1-ylpropoxy)-3,4-dihydroquinazolin-4-one 264208-53-9P 288384-72-5P 288384-73-6P 288384-74-7P 367272-12-6P, 7-(2,3-Epoxypropoxy)-6-methoxy-3-pivaloyloxymethyl-3,4dihydroquinazolin-4-one 367272-22-8P, 7-[2-Acetoxy-3-(pyrrolidin-1yl)propoxy]-4-chloro-6-methoxyquinazoline 367272-24-0P, 7-[2-Acetoxy-3-(piperidino)propoxy]-4-chloro-6-methoxyquinazoline 379228-65-6P, 7-Amino-3-chlorobenzofuran 379228-67-8P,

379230-43-0P, 7-Amino-6-chlorobenzofuran

3-Chloro-7-nitrobenzofuran

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379230-44-1P, Ethyl 2-allyloxy-6-chlorobenzoate
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6-chlorobenzofuran-7-carboxylate 379230-47-4P, 6-Chlorobenzofuran-7-
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7-(2-Hydroxy-3-morpholinopropoxy)-6-methoxy-3,4-dihydroquinazolin-4-one
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dihydroquinazolin-4-one
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cyanomethylpiperazin-1-yl)propoxy]-4-chloro-6-methoxyquinazoline
401811-87-8P, 7-[2-Acetoxy-3-(N-isopropyl-N-methylamino)propoxy]-4-chloro-
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6-methoxyquinazoline
                  412349-12-3P, 4-Allyloxy-3-nitro-1-fluorobenzene
dihydrobenzofuran
412349-13-4P, 2-Allyl-4-fluoro-6-nitrophenol
                                             412349-14-5P.
5-Fluoro-7-nitrobenzofuran
                            412349-15-6P, 7-Amino-5-fluorobenzofuran
412349-16-7P
              412349-17-8P
                             412349-19-0P
                                            412349-20-3P,
7-Amino-3-bromo-6-chlorobenzofuran
                                    412349-21-4P, 7-Benzyloxy-4-(6-
chlorobenzofuran-7-ylamino)-6-methoxyquinazoline
                                                  412349-22-5P,
4-(6-Chlorobenzofuran-7-ylamino)-7-hydroxy-6-methoxyquinazoline
412349-23-6P, 7-(N-tert-Butoxycarbonylpiperidin-4-ylmethoxy)-4-(6-
chlorobenzofuran-7-ylamino)-6-methoxyquinazoline 412349-24-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of 4-(7-benzofuranylamino)quinazolines with antitumor activity)
193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-
methoxyguinazoline 288384-73-6P 288384-74-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of 4-(7-benzofuranylamino)quinazolines with antitumor activity)
193001-80-8 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-
     (CA INDEX NAME)
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RN 288384-73-6 CAPLUS
CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 193001-79-5 CMF C15 H10 C1 F N2 O3

IT

RN

CN

CM

CRN 76-05-1 CMF C2 H F3 O2

288384-74-7 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CN piperazinyl)propoxy] - (9CI) (CA INDEX NAME)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

2002:157764 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:200201

TITLE: Preparation of quinazolines as an anti-invasive agent in the containment and/or treatment of solid tumor

disease

INVENTOR(S): Hennequin, Laurent Francois Andre; Ple, Patrick;

Lambert, Christine Marie Paul

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 138 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE							APPLICATION NO. DATE												
-																			
W	Ю	2002	0163	52	A:	1	2002	0228	WO 2001-GB3649 20010815										
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
															KZ,				
															NO,				
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E	P	1313																	
		R:											LL,	ĿU,	NL,	SE,	MC,	P.I.	
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В	R	2001	0133!	58	Α		2003	0701		BR 2001-13358						0815			
J	P	2004	5067	32	T	2	2004	0304	JP 2002-521453						2001	0815			
U	IS	2004	03404	46	A:	1	2004	0219		τ	JS 20	03-3	4467	8	2003	0214			
N	O	2003	0007	95	Α		2003	0404		N	10 20	03-7	95		2003	0220			
PRIORI	TY	APP	LN.	INFO	. :				]	EP 2	2000-	4023	20	Α	2000	0821			
									1	EP 2	2001-	4010	06	Α	2001	0419			
									1	WO 2	2001-	GB36	49	W	2001	0815			

MARPAT 136:200201

$$\begin{bmatrix} \mathbb{R}^{1} \end{bmatrix}_{\mathbb{M}}$$

OTHER SOURCE(S):

GI

AB The title compds. [I; m, n = 0-3; R1 = halo, CF3, CN, etc.; R2 = H, alkyl; R3 = halo, CF3, CN, etc.] and their salts, useful in the manufacture of a medicament for use as an anti-invasive agent in the containment and/or treatment of solid tumor disease, were prepared and formulated. E.g., a multi-step synthesis of I [R1 = 7-(3-morpholinopropoxy); m = 1; R2, R3 = H] was given. The compds. I showed IC50's of 0.001-10 μM against c-src tyrosine kinase.

IC ICM C07D405-12

ICS C07D405-14; A61K031-517; A61P035-00

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63 IT 1668-84-4P, 2,3-Methylenedioxyaniline 2058-49-3P, 3-Methylsulfonylpropan-2411-83-8P, Methyl 2,3-dihydroxybenzoate 5317-33-9P, 1-(3-Hydroxypropyl)-4-methylpiperazine 5464-12-0P, 1-(2-Hydroxyethyl)-4methylpiperazine 5768-39-8P, 2,3-Methylenedioxybenzoic acid 7228-38-8P, 5-Chloro-1,3-benzodioxole 7357-67-7P, 3-Morpholinopropyl 33842-16-9P, Methyl 2,3-methylenedioxybenzoate 55276-43-2P, chloride 1-Mesylpiperazine 58619-56-0P, 1-Cyanomethylpiperazine 71935-32-5P, 2-Cyano-4-hydroxymethylpyridine 72744-56-0P, 5-Bromo-1,3-benzodioxole-4-74277-33-1P 74360-79-5P, 1-(tert-Butoxycarbonyl)-Ncarboxylic acid 77290-31-4P, 1-(tert-Butoxycarbonyl)-4methyl-L-prolinamide 89795-00-6P, 4-Hydroxy-4-(2cyanomethylpiperazine 99177-19-2P, 3-[4-(3hydroxyethyl) tetrahydropyran Hydroxypropyl)piperazin-1-yl]propionitrile 104472-98-2P, 6-Chloro-2-(2-hydroxyethoxy)pyridine 111081-10-8P 118546-61-5P 123855-51-6P, N-tert-Butoxycarbonyl-4-hydroxymethylpiperidine 142851-03-4P, Ethyl N-tert-butoxycarbonylpiperidine-4-carboxylate 149152-54-5P, 1-(tert-Butoxycarbonyl)-N, N-dimethyl-L-prolinamide 166815-96-9P, N-tert-Butoxycarbonyl-4-(4-toluenesulfonyloxymethyl)piperidi 179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 193001-56-8P, 7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline 193002-09-4P, 4-(3-Hydroxypropoxy)pyridine 193002-24-3P, 7-Benzyloxy-6-methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 193002-25-4P, 7-Hydroxy-6-methoxy-3-pivaloyloxymethyl-3,4-196194-61-3P, 6-Methoxy-7-(3-morpholinopropoxy)dihydroquinazolin-4-one 4-phenoxyquinazoline 196194-62-4P, 6-Methoxy-7-(3-morpholinopropoxy)-3,4-196195-13-8P, 4-Chloro-6-methoxy-7-(3dihydroquinazolin-4-one quinazoline 198478-03-4P, 3-(4-Benzylpiperazin-1-199327-69-0P, 4-Chloro-6-methoxy-7-(3-pyrrolidin-1morpholinopropoxy) quinazoline yl)propionitrile ylpropoxy) quinazoline 199327-71-4P, 3-Methoxy-4-(3-pyrrolidin-1ylpropoxy) benzoic acid hydrochloride 199327-72-5P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1-ylpropoxy) benzoic acid hydrochloride 199327-73-6P, 5-Methoxy-2-nitro-4-(3-pyrrolidin-1-ylpropoxy)benzamide 199327-74-7P, 2-Amino-5-methoxy-4-(3-pyrrolidin-1-ylpropoxy)benzamide hydrochloride 199327-75-8P, 6-Methoxy-7-(3-pyrrolidin-1-ylpropoxy)-3,4-dihydroquinazolin-205194-33-8P, 3-(1,1-Dioxotetrahydro-4H-1,4-thiazin-4-yl)propan-1-264208-53-9P, 6-Methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]-3,4dihydroguinazolin-4-one 264208-55-1P, 4-Chloro-6-methoxy-7-[3-(4methylpiperazin-1-yl)propoxy]quinazoline 264208-58-4P, Ethyl 4-(N-tert-butoxycarbonylpiperidin-4-ylmethoxy)-3-methoxybenzoate 264208-60-8P, Ethyl 3-methoxy-4-(N-methylpiperidin-4-ylmethoxy)benzoate 264208-63-1P, Ethyl 5-methoxy-4-(N-methylpiperidin-4-ylmethoxy)-2-nitrobenzoate 264208-66-4P, Ethyl 2-amino-5-methoxy-4-(N-methylpiperidin-4-ylmethoxy) benzoate 264208-69-7P, 6-Methoxy-7-(N-methylpiperidin-4ylmethoxy) -3,4-dihydroquinazolin-4-one 264208-72-2P, 4-Chloro-6-methoxy-7-(N-methylpiperidin-4-ylmethoxy)quinazoline 264208-86-8P, 7-(N-tert-Butoxycarbonylpiperidin-4-ylmethoxy)-6-methoxy-3pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 288383-30-2P 288383-31-3P 288383-32-4P 288383-71-1P, 4-Chloro-6-methoxy-7-(3-piperidinopropoxy) quinazoline 288383-72-2P, 7-(3-Bromopropoxy)-6methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one 288383-73-3P, 6-Methoxy-7-(3-piperidinopropoxy)-3-pivaloyloxymethyl-3,4dihydroquinazolin-4-one 288383-74-4P, 6-Methoxy-7-(3-piperidinopropoxy)-3,4-dihydroquinazolin-4-one 288384-72-5P, 3-(4-Methylpiperazin-1yl)propyl 4-toluenesulfonate 288384-73-6P, 4-(4-Chloro-2fluorophenoxy) -7-hydroxy-6-methoxyquinazoline trifluoroacetate salt 288384-74-7P, 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4methylpiperazin-1-yl)propoxy]quinazoline 288385-87-5P,

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6-Methoxy-7-(piperidin-4-ylmethoxy)-3-pivaloyloxymethyl-3,4-
                         288386-07-2P, 7-[2-(N-tert-
dihydroquinazolin-4-one
Butoxycarbonylpiperidin-4-yl)ethoxyl-6-methoxy-3-pivaloyloxymethyl-3,4-
                          349130-22-9P, 1-Benzyl-4-isobutyrylpiperazine
dihydroquinazolin-4-one
367272-12-6P, 7-(2,3-Epoxypropoxy)-6-methoxy-3-pivaloyloxymethyl-3,4-
                         367272-22-8P, 7-(2-Acetoxy-3-(pyrrolidin-1-
dihydroquinazolin-4-one
                                           367272-24-0P,
yl)propoxy)-4-chloro-6-methoxyquinazoline
7-(2-Acetoxy-3-piperidinopropoxy)-4-chloro-6-methoxyquinazoline
379228-45-2P, 6-Chloro-2,3-methylenedioxyaniline
                                                   379228-98-5P,
1-(2-Hydroxyethyl)-5-methyl-2-morpholinomethylimidazole
                                                          379228-99-6P,
Methyl 2-(5-methylimidazol-1-yl)acetate
                                        379229-01-3P,
1-(2-Hydroxyethyl)-5-methylimidazole
                                       379229-03-5P, 1-(2-tert-
Butyldimethylsilyloxyethyl) -5-methylimidazole
                                               379229-05-7P,
1-(2-tert-Butyldimethylsilyloxyethyl)-2-formyl-5-methylimidazole
379229-07-9P, 1-(2-tert-Butyldimethylsilyloxyethyl)-5-methyl-2-
morpholinomethylimidazole
                           379229-08-0P, (2S)-1-(2-Hydroxyethyl)-N,N-
dimethylpyrrolidine-2-carboxamide
                                   379229-09-1P, N,N-Dimethyl-L-
prolinamide hydrochloride
                            379229-38-6P
                                          379229-39-7P,
N-Methyl-L-prolinamide trifluoroacetic acid salt
                                                   379229-40-0P
379229-41-1P
               379229-42-2P
                              379229-43-3P
                                             379229-45-5P
                                                            379229-46-6P
               379229-83-1P, 5-Chloro-1,3-benzodioxole-4-carboxylic acid
379229-47-7P
379229-84-2P, tert-Butyl 5-chloro-1,3-benzodioxol-4-ylcarbamate
401811-73-2P, 7-[2-(2-Chloroethoxy)ethoxy]-6-methoxy-3-(pivaloyloxymethyl)-
3,4-dihydroquinazolin-4-one
                             401811-74-3P, 6-Methoxy-7-[2-[2-(4-
methylpiperazin-1-yl)ethoxy]ethoxy]-3-pivaloyloxymethyl-3,4-
dihydroquinazolin-4-one
                         401811-75-4P, 6-Methoxy-7-[2-[2-(4-
methylpiperazin-1-yl)ethoxy]ethoxy]-3,4-dihydroquinazolin-4-one
401811-76-5P, 4-Chloro-6-methoxy-7-[2-[2-(4-methylpiperazin-1-
yl)ethoxy]ethoxy]quinazoline
                               401811-77-6P, tert-Butyl
(5-bromo-1,3-benzodioxol-4-yl)carbamate
                                        401811-78-7P,
6-Bromo-2,3-methylenedioxyaniline
                                    401811-79-8P, 6-Methoxy-1,3-
benzodioxole-4-carboxylic acid
                                401811-80-1P, tert-Butyl
(6-methoxy-1,3-benzodioxol-4-yl)carbamate
                                           401811-81-2P,
                                     401811-82-3P, 7-(2-Hydroxy-3-
5-Methoxy-2,3-methylenedioxyaniline
morpholinopropoxy)-6-methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-
      401811-83-4P, 7-(2-Hydroxy-3-morpholinopropoxy)-6-methoxy-3,4-
                          401811-84-5P, 7-(2-Acetoxy-3-morpholinopropoxy)-
dihydroguinazolin-4-one
6-methoxy-3,4-dihydroquinazolin-4-one
                                       401811-85-6P, 7-(2-Acetoxy-3-
morpholinopropoxy)-4-chloro-6-methoxyquinazoline
                                                   401811-86-7P.
7-(2-Acetoxy-3-(4-cyanomethylpiperazine-1-yl)propoxy)-4-chloro-6-
                   401811-87-8P, 7-(2-Acetoxy-3-(N-isopropyl-N-
methoxyquinazoline
methylamino) propoxy) -4-chloro-6-methoxyquinazoline
                                                    401811-88-9P,
7-(N-tert-Butoxycarbonylpiperidin-4-ylmethoxy)-6-methoxy-3,4-
                         401811-89-0P, 7-(N-tert-Butoxycarbonylpiperidin-
dihydroquinazolin-4-one
4-ylmethoxy)-4-chloro-6-methoxyquinazoline
                                            401811-90-3P,
7-[2-(N-tert-Butoxycarbonylpiperidin-4-yl)ethoxy]-6-methoxy-3,4-
                         401811-91-4P, 7-[2-(N-tert-
dihydroquinazolin-4-one
Butoxycarbonylpiperidin-4-yl)ethoxy]-4-chloro-6-methoxyquinazoline
401811-92-5P, 6-Methoxy-7-[1-(2-(morpholin-4-yl)ethyl)piperidin-4-
ylmethoxy]-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
                                                            401811-93-6P,
6-Methoxy-7-[1-(2-(morpholin-4-yl)ethyl)piperidin-4-ylmethoxy]-3,4-
                         401811-94-7P, 4-Chloro-6-Methoxy-7-[1-(2-
dihydroquinazolin-4-one
(morpholin-4-yl)ethyl)piperidin-4-ylmethoxy]quinazoline
                                                          401811-95-8P,
2-(3-Hydroxypropoxy)-6-methylpyridine
                                        401811-96-9P, 2-Chloro-6-(2-
((tetrahydropyran-2-yl)oxy)ethoxy)pyridine
                                             401811-97-0P
                                                            401811-98-1P,
N-tert-Butoxycarbonyl-4-hydroxy-4-(2-hydroxyethyl)piperidine
401811-99-2P, Ethyl 2-(4-hydroxytetrahydropyran-4-yl)acetate
401812-00-8P, cis-3,5-Dimethyl-1-(3-hydroxypropyl)piperazine
401812-01-9P
               401812-02-0P
                              401812-03-1P
                                             401812-04-2P,
1-(3-Hydroxypropyl)-4-isobutyrylpiperazine
                                             401812-05-3P,
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7-(2-Bromoethoxy)-4-(2,3-methylenedioxyanilino)-6-methoxyquinazoline 401812-06-4P, 7-(3-Chloropropoxy)-4-(2,3-methylenedioxyanilino)-6-401812-07-5P, 7-(3-Bromopropoxy)-4-(6-chloro-2,3methoxyquinazoline methylenedioxyanilino)-6-methoxyquinazoline 401812-08-6P, 4-(6-Chloro-2,3-methylenedioxyanilino)-7-(3-chloropropoxy)-6-401812-09-7P methoxyquinazoline 401812-10-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of quinazolines as an anti-invasive agent in the containment and/or treatment of solid tumor disease) IT 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6methoxyquinazoline 288383-31-3P 288384-73-6P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6-methoxyquinazoline trifluoroacetate salt 288384-74-7P, 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinazoline RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of quinazolines as an anti-invasive agent in the containment and/or treatment of solid tumor disease) 193001-80-8 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-RN CN (CA INDEX NAME)

RN 288383-31-3 CAPLUS
CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-7-[3-(1,1-dioxido-4-thiomorpholinyl)propoxy]-6-methoxy- (9CI) (CA INDEX NAME)

RN 288384-73-6 CAPLUS

7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-, CNmono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 193001-79-5 CMF C15 H10 C1 F N2 O3

CM

76-05-1 CRN CMF C2 H F3 O2

RN

288384-74-7 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]- (9CI) (CA INDEX NAME) CN

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 (CH<sub>2</sub>)<sub>3</sub>-0  $\sim$  N N MeO  $\sim$  N  $\sim$  C1

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:157044 CAPLUS

DOCUMENT NUMBER:

136:216752

TITLE:

Preparation of 4-aminoquinazolines as inhibitors of

signal transduction mediated by tyrosine kinase

INVENTOR (S):

Himmelsbach, Frank

PATENT ASSIGNEE(S):

Boehringer Ingelheim Pharma K.-G., Germany

SOURCE:

Ger. Offen., 10 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

DATE APPLICATION NO. PATENT NO. KIND 20020228 DE 2000-10040527 20000818 DE 10040527 **A1** PRIORITY APPLN. INFO.: DE 2000-10040527 20000818

OTHER SOURCE(S):

MARPAT 136:216752

GI

Title compds. [I; R1 = PhCH2, (substituted) Ph; R2 = OH, alkylcarbonyloxy, AB amino, NO2; R3 = H, F, Cl, Br, cycloalkoxy, cycloalkylalkoxy, (substituted) alkoxy], and stereoisomers and salts thereof are claimed. I were said to inhibit signal transduction mediated by tyrosine kinase.

IC ICM C07D239-86

ICS C07D405-12

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

IT 402472-89-3P 402472-90-6P 402472-91-7P 402472-92-8P 402472-93-9P 402472-94-0P 402472-95-1P 402472-96-2P 402472-97-3P 402472-98-4P 402472-99-5P 402473-00-1P 402473-01-2P 402473-02-3P 402473-03-4P 402473-04-5P 402473-05-6P 402473-06-7P 402473-07-8P 402473-08-9P 402473-09-0P 402473-10-3P 402473-11-4P 402473-12-5P 402473-13-6P 402473-14-7P 402473-15-8P 402473-16-9P 402473-17-0P 402473-18-1P 402473-23-8P 402473-19-2P 402473-20-5P 402473-21-6P 402473-22-7P 402473-27-2P 402473-28-3P 402473-24-9P 402473-25-0P 402473-26-1P 402473-31-8P 402473-32-9P 402473-29-4P 402473-30-7P

402473-33-0P 402473-34-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of aminoquinazolines as inhibitors of signal transduction mediated by tyrosine kinase)

402473-33-0P 402473-34-1P TT

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoquinazolines as inhibitors of signal transduction mediated by tyrosine kinase)

RN 402473-33-0 CAPLUS

CN Carbamic acid, (6-amino-7-ethoxy-4-quinazolinyl)(3-chloro-4-fluorophenyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 402473-34-1 CAPLUS

CN Carbamic acid, (3-chloro-4-fluorophenyl) (7-ethoxy-6-hydroxy-4-quinazolinyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L12 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:31424 CAPLUS

DOCUMENT NUMBER: 136:102393

TITLE: Preparation of quinazolinylureas for treatment of

solid tumors.

PATENT ASSIGNEE(S): Astrazeneca Ab, Swed.; Astrazeneca Uk Ltd.

SOURCE: PCT Int. Appl., 149 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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20020110
                                            WO 2001-GB2874
                                                               20010628
     WO 2002002534
                        Α1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                            AU 2002-16758
                                                               20010628
     AU 2002016758
                       A5
                             20020114
PRIORITY APPLN. INFO .:
                                          EP 2000-401897
                                                            A 20000703
                                                            W 20010628
                                          WO 2001-GB2874
OTHER SOURCE(S):
                          MARPAT 136:102393
     Use of Q1R2NC(:Z)NR3Q2 [Q1 = (substituted) (fused) quinazolinyl,
     quinolinyl, etc.; Q2 = (substituted) aryl, aralkyl, arylcycloalkyl,
     heteroaryl, heteroarylalkyl; R2, R3 = H, alkyl; R2R3 = CH2, CH2CH2,
     (CH2)3] as antiinvasive agents in the containment and/or treatment of
     solid tumor disease is claimed. Thus, 2,6-dichlorophenyl isocyanate was
     added to a solution of 4-amino-6-methoxy-7-(N-methylpiperidin-4-
     ylmethoxy)quinazoline (preparation given) in CH2Cl2/DMF followed by stirring to
     give 1-(2,6-dichlorophenyl)-3-[6-methoxy-7-(N-methylpiperidin-4-
     ylmethoxy)quinazolin-4-yl]urea. Title compds. inhibited proliferation of
     NIH 3T3 fibroblasts with IC50 in the range, for example, of 0.001-10
     μΜ.
IC
     ICM
         C07D239-94
          C07D215-54; C07D401-12; C07D495-04; A61K031-505; A61K031-4706;
          A61P035-00
     28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1
                                       77-77-0, Divinyl sulfone
IT
     75-12-7, Formamide, reactions
     N, N-Diethyl-N'-methylethylenediamine 107-15-3, Ethylenediamine,
                 107-99-3, 2-Dimethylaminoethyl chloride
     reactions
                                                             109-01-3,
                         109-64-8, 1,3-Dibromopropane
     1-Methylpiperazine
                                                            109-70-6,
     1-Bromo-3-chloropropane
                               109-83-1, 2-Methylaminoethanol
                                                                  110-65-6,
     2-Butyne-1,4-diol 110-91-8, Morpholine, reactions
                                                             123-00-2,
     3-Morpholinopropylamine 123-75-1, Pyrrolidine, reactions 140-88-5,
     Ethyl acrylate
                      156-87-6, 3-Aminopropanol 288-36-8, 1,2,3-Triazole
     446-32-2, 2-Amino-4-fluorobenzoic acid 496-69-5, 2-Bromo-4-fluorophenol
     505-10-2, 3-Methylthio-1-propanol 617-05-0, Ethyl 4-hydroxy-3-
                      627-18-9 627-30-5, 3-Chloropropanol
     methoxybenzoate
                                                                 693-98-1,
     2-Methylimidazole
                         1126-09-6, Ethyl piperidine-4-carboxylate
                                                                         1458-63-5,
     3-Piperidinopropyl chloride 1943-82-4, Phenethyl isocyanate
                                                                         2105-94-4,
     4-Bromo-2-fluorophenol 2387-20-4 2955-88-6, N-(2-Hydroxyethyl)pyrrolidine 3040-44-6, N-(2-Hydroxyethyl)piperidine
     3240-94-6, 2-Morpholinoethyl chloride 3320-86-3, 2-Nitrophenyl
     isocyanate
                  3473-63-0, Formamidine acetate 4441-30-9,
     4-(3-Hydroxypropyl)morpholine
                                     4480-49-3, 4-Morpholino-2-butyn-1-ol
                 5036-48-6, 3-(1-Imidazolyl)propylamine 5050-41-9,
     2-(Pyrrolidin-1-yl)ethyl chloride
                                          5344-27-4, 4-(2-Hydroxyethyl)pyridine
     5911-08-0, Cyclopropylmethyl chloride
                                              6482-24-2, 2-Bromoethyl methyl
             6590-95-0, 2,6-Dichlorophenyl isothiocyanate
                                                               7223-38-3,
     3-Dimethylamino-1-propyne 7223-42-9
                                              7583-53-1, 3-Hydroxymethyl-N-
     methylpiperidine
                         14649-03-7, (S)-\alpha-Methylbenzyl isocyanate
     16285-74-8, 4-Aminothieno[3,2-d]pyrimidine
                                                    16319-11-2,
     3-Amino-N, N, 2, 4-tetramethylbenzamide
                                             18997-19-8, Chloromethyl pivalate
     21575-13-3, 4-Amino-6,7-dimethoxyquinazoline 22288-78-4, Methyl
                                       27578-60-5, 2-Piperidinoethylamine
     3-amino-2-thiophenecarboxylate
     33375-06-3, (R)-\alpha-Methylbenzyl isocyanate 35000-38-5,
     (tert-Butoxycarbonylmethylene)triphenylphosphorane
                                                             35019-96-6,
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trans-2-Phenylcyclopropyl isocyanate
                                            35956-52-6
                                                         39546-32-2,
    Piperidine-4-carboxamide 39743-20-9, 3-(Pyrrolidin-1-yl)propyl chloride
     39920-37-1, 2,6-Dichlorophenyl isocyanate 50586-80-6,
     2-(2-Methoxyethoxy)ethyl tosylate 52808-36-3, 2-(2-Methoxyethoxy)ethyl
               56651-58-2, 2-Methylbenzyl isocyanate 57260-71-6,
     1-(tert-Butoxycarbonyl)piperazine 60547-98-0, 2-Amino-4-benzyloxy-5-
                       71408-00-9, Methyl 4-amino-5-cyano-2-hydroxybenzoate
    methoxybenzamide
    77648-20-5, 2,4,6-Trimethoxybenzylamine 79496-61-0
                                                           88442-63-1,
     1-(1-Naphthyl)ethyl isocyanate
                                    135632-53-0
                                                   146548-59-6,
    2,4,6-Trimethoxybenzylamine hydrochloride
                                                179688-02-9
                                                               179688-53-0
                                               320367-00-8 388616-58-8
    184475-35-2
                  214470-55-0 320364-79-2
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of quinazolinylureas for treatment of solid tumors)
IT
                540-51-2P, 2-Bromoethanol
                                            2058-49-3P
                                                         4332-48-3P
    104-16-5P
                 5464-12-0P
                              7357-67-7P
                                            13280-07-4P, 4-Chloro-2-butyn-1-ol
     5317-33-9P
     14597-28-5P
                  16229-25-7P
                                 16234-10-9P, Thieno[3,2-d]pyrimidin-4(1H)-one
                                 19748-66-4P, 1-Pyrrolidinepropanol
                  16499-57-3P
     16269-66-2P
                    142851-03-4P
                                   162364-72-9P
                                                  166815-96-9P
                                                                 179688-01-8P
     123855-51-6P
                    193002-14-1P
                                   193002-24-3P
                                                  193002-25-4P
                                                                 199327-59-8P
     179688-03-0P
                    205194-13-4P
                                   205194-33-8P
                                                  220896-01-5P
                                                                 220896-04-8P
     199327-61-2P
     220896-07-1P
                    220896-09-3P
                                   220896-44-6P
                                                  220896-53-7P
                                                                 230955-75-6P
     264208-58-4P
                    264208-60-8P
                                   264208-63-1P
                                                  264208-66-4P
                                                                 264208-69-7P
                    288383-69-7P
                                   288383-71-1P
                                                  288383-72-2P
                                                                 288383-73-3P
     264208-72-2P
    288383-74-4P 288384-43-0P
                                 288385-51-3P, 1H-1,2,3-Triazole-1-
                           320365-82-0P
                                           320365-83-1P
    propanol 320365-81-9P
                    320365-85-3P
                                   320365-86-4P
                                                  320365-87-5P
                                                                 320365-88-6P
     320365-84-2P
     320365-89-7P
                    320365-90-0P
                                   320365-91-1P
                                                  320365-92-2P
                                                                 320365-93-3P
                    320365-95-5P
                                   320365-96-6P
                                                  320365-97-7P
                                                                 320365-98-8P
     320365-94-4P
    320366-00-5P 320366-01-6P 320366-02-7P
                    320366-04-9P 320366-05-0P
                                                320366-06-1P
    320366-03-8P
                    320366-08-3P 320366-09-4P
                                                320366-10-7P
     320366-07-2P
     320366-12-9P 320366-13-0P
                                 320366-14-1P
                                                320366-15-2P
                    320366-17-4P
                                   320366-18-5P
                                                  320366-19-6P
                                                                 320366-20-9P
     320366-16-3P
     320366-21-0P
                    320366-22-1P
                                   320366-23-2P
                                                  320366-24-3P
                                                                 320366-25-4P
                                   320366-28-7P
    320366-26-5P
                    320366-27-6P
                                                  320366-29-8P
                                                                 320366-30-1P
    320366-31-2P 320366-32-3P 320366-33-4P
                                              320366-34-5P
                                   320366-37-8P 320366-38-9P
    320366-35-6P
                    320366-36-7P
    320366-39-0P
                    320366-40-3P 320366-41-4P
    320366-42-5P 320366-43-6P 320366-44-7P
    320366-45-8P
                    320366-46-9P
                                   320366-47-0P 320366-48-1P
                                                  320366-52-7P
    320366-49-2P
                    320366-50-5P
                                   320366-51-6P
    320366-53-8P 320366-54-9P 320366-55-0P
    320366-56-1P
                    320366-57-2P
                                   320366-58-3P
                                                  320366-59-4P
                                   320366-62-9P
                                                  320366-63-0P
     320366-60-7P
                    320366-61-8P
                                                                 320366-64-1P
                                   320366-67-4P
                                                  320366-68-5P
    320366-65-2P
                    320366-66-3P
                                   320366-71-0P
                                                  320366-72-1P
                                                                 320366-73-2P
     320366-69-6P
                    320366-70-9P
     320366-74-3P
                    320366-75-4P
                                   320366-76-5P
                                                  320366-77-6P
                                                                 320366-78-7P
                    320366-80-1P 320366-81-2P
                                                320366-82-3P
     320366-79-8P
     320366-85-6P
                    320366-86-7P
                                   320366-87-8P
                                                  320366-88-9P
                                                                 320366-89-0P
                                   320366-92-5P
                                                  320366-93-6P
                                                                 320366-94-7P
     320366-90-3P
                    320366-91-4P
                                   320366-97-0P
                                                  320366-99-2P
                                                                 320367-02-0P
     320366-95-8P
                    320366-96-9P
                    359701-50-1P
                                   388616-56-6P
                                                  388616-57-7P
     359701-48-7P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of quinazolinylureas for treatment of solid tumors)
IT
    388616-58-8
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of quinazolinylureas for treatment of solid tumors)
RN
    388616-58-8 CAPLUS
CN
     7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-N-(3-
```

methoxypropyl) - (9CI) (CA INDEX NAME)

288384-43-0P 320365-81-9P 320366-00-5P 320366-01-6P 320366-02-7P 320366-03-8P 320366-05-0P 320366-07-2P 320366-09-4P 320366-13-0P 320366-32-3P 320366-33-4P 320366-38-9P 320366-39-0P 320366-41-4P 320366-42-5P 320366-43-6P 320366-44-7P 320366-45-8P 320366-48-1P 320366-53-8P 320366-54-9P 320366-55-0P 320366-56-1P 320366-65-2P 320366-81-2P 359701-48-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of quinazolinylureas for treatment of solid tumors) RN288384-43-0 CAPLUS 7-Quinazolinol, 4-(4-bromo-2-fluorophenoxy)-6-methoxy- (9CI) CN

RN 320365-81-9 CAPLUS \*
CN Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-[(1-methyl-4-piperidinyl)methoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & & \\ & &$$

RN 320366-00-5 CAPLUS

CN 7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-, acetate (ester) (9CI) (CA INDEX NAME)

RN 320366-01-6 CAPLUS

CN 7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX NAME)

RN 320366-02-7 CAPLUS

CN Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-

piperazinyl)propoxy] - (9CI) (CA INDEX NAME)

RN

320366-03-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(4-CN morpholinyl)propoxyl - (9CI) (CA INDEX NAME)

RN

320366-05-0 CAPLUS
Ethanamine, 2-[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]-CNN, N-dimethyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{O} \\ \text{MeO} \end{array}$$

RN 320366-07-2 CAPLUS

2-Imidazolidinone, 1-[2-[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-CN

# quinazolinyl]oxy]ethyl]- (9CI) (CA INDEX NAME)

HN N— 
$$CH_2$$
—  $CH_2$ —  $O$ 

MeO

Br

RN

320366-09-4 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(1-pyrrolidinyl)ethoxy]- (9CI) (CA INDEX NAME) CN

RN

320366-13-0 CAPLUS
Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(2-methoxyethoxy)ethoxy]- (9CI) (CA INDEX NAME) CN

RN

320366-32-3 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(3-bromopropoxy)-6-methoxy-CN (9CI) (CA INDEX NAME)

Br- 
$$(CH_2)_3$$
-0 N N MeO F

RN320366-33-4 CAPLUS

4-Piperidinecarboxamide, 1-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-CNquinazolinyl]oxy]propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ H_2N-C & & & \\ & & & \\ O & & & \\ &$$

320366-38-9 CAPLUS RN

Methanesulfonic acid, trifluoro-, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-CNquinazolinyl ester (9CI) (CA INDEX NAME)

RN

320366-39-0 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(1-pyrrolidinyl)-1-CN propynyl] - (9CI) (CA INDEX NAME)

$$N-CH_2-C = C$$
 $MeO$ 
 $Br$ 
 $F$ 

RN

320366-41-4 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(4-morpholinyl)-1-CNhexynyl] - (9CI) (CA INDEX NAME)

RN 320366-42-5 CAPLUS

CNQuinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(2-methyl-1H- imidazol-1-yl)-1-hexynyl]- (9CI) (CA INDEX NAME)

Me 
$$N$$
—  $(CH_2)_4$ —  $C$ —  $C$ 
 $MeO$ 
 $Br$ 
 $F$ 

RN320366-43-6 CAPLUS

2-Propyn-1-amine, 3-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-CN N, N-dimethyl- (9CI) (CA INDEX NAME)

$$Me_2N-CH_2-C = C$$
 $Me_0$ 
 $N$ 
 $N$ 

RN

320366-44-7 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(4-methyl-1-CNpiperazinyl)-1-hexynyl]- (9CI) (CA INDEX NAME)

Me N— (CH<sub>2</sub>)<sub>4</sub>-C
$$\equiv$$
 C N N MeO Br

320366-45-8 CAPLUS RN

Quinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(cyclopropylmethoxy)-6-methoxy-CN(9CI) (CA INDEX NAME)

RN320366-48-1 CAPLUS

7-Quinazolinecarboxylic acid, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-, methyl ester (9CI) (CA INDEX NAME) CN

RN

320366-53-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME) CN

RN 320366-54-9 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 320366-55-0 CAPLUS

CN 7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-N-[3-(4-morpholinyl)propyl]- (9CI) (CA INDEX NAME)

RN 320366-56-1 CAPLUS

CN 7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-N-[3-(1H-imidazol-1-yl)propyl]-6-methoxy- (9CI) (CA INDEX NAME)

RN 320366-65-2 CAPLUS

CN Carbamic acid, [[1-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]propyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 320366-81-2 CAPLUS

CN Carbamic acid, [6-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-5-hexynyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

t-BuO-C-N-(CH<sub>2</sub>)<sub>4</sub>-C=C N
MeO

Br

$$R$$

RN 359701-48-7 CAPLUS

Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(1-CN pyrrolidinyl)propoxy] - (9CI) (CA INDEX NAME)

$$N - (CH_2)_3 - O$$
 $N - N$ 
 $N$ 
 $N - N$ 
 $N -$ 

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:10463 CAPLUS

DOCUMENT NUMBER:

136:85816

TITLE:

Synthesis of guanidine derivatives of quinazoline and

quinoline for use in the treatment of autoimmune

INVENTOR(S):

PATENT ASSIGNEE(S):

Poyser, Jeffrey Philip Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 150 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KI	KIND DATE				APPLICATION NO.						DATE				
									-										
WO	2002	0006	44	A	1	2002	0103		WO 2001-GB2698 20010619										
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,		
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
														ΚZ,					
		-												NO,					
														TZ,					
														ТJ,					
	RW:	-		-										AT,		CH,	CY,		
				_										PT,					
														TD,					
EP	1296								EP 2001-940757 200106										
														NL,		MC,	PT,		
						FI,													
PRIORIT	Y APP								-	_		6	Α	2000	0624				
	PRIORITY APPLN. INFO.:													20001219					
OTHER SOURCE(S):					WO 2001-GB2698 W 20010619 MARPAT 136:85816														

searched by Alex Waclawiw

GI

Title compds. I [Q1 = (un)substituted quinazolinyl and quinazolinyl-like AB ring; R2 = H, alkyl; R3 = H, alkyl, or R2 and R3 together form a CH2, (CH2)2 or (CH2)3 group; R5 = H, alkyl, or R5 and R6 together with the N atom to which they are attached form a 4- to 7-membered heterocyclic ring optionally containing a further heteroatom selected from 0, N and S, provided that one of the pairs of groups R2 and R4 together, R3 and R4 together and R5 and R4 together forms a bond; Q2 = aryl, arylalkyl, arylcycloalkyl, heteroaryl, heteroarylalkyl or heteroarylcycloalkyl; R6 = (un)substituted group selected from alkenyl, alkynyl, cycloalkyl and cycloalkenyl, or R6 is a substituted alkyl group, and wherein adjacent carbon atoms in any alkylene chain within a R6 group are optionally separated by the insertion into the chain of a group selected from 0, S, SO, SO2, amino, CO, etc.; or a tautomer thereof] were prepared Over 100 synthetic examples were provided. E.g., Et 3-methoxy-4-((N-methylpiperidin-4-yl)methoxy)benzoate (preparation given) was nitrated (CH2Cl2, TFA, HNO3, 0°C), the nitro group reduced (MeOH, Pt/C, 1.8 atm H2), the product condensed/cyclized (2-methoxyethanol, 115°C, 2 h) and treated with thionyl chloride to qive 4-chloro-6-methoxy-7-((N-methylpiperidin-4-yl)methoxy)quinazoline. This intermediate was treated with 4-bromo-2-fluorophenol (DMF, K2CO3, 100°C, 2.5 h), ammonia in isopropanol (2M, 130°C, 16 h) to give the 4-aminoquinazoline derivative which was reacted with 2-chloro-6-methylphenylisothiocyanate (DMF, NaH) to afford 1-(2-chloro-6-methylphenyl)-3-[6-methoxy-7-((N-methylpiperidin-4yl)methoxy)quinazolin-4-yl]thiourea. The thiourea was treated with 2-aminoethanol (CHCl3/MeOH, HgO, 2 h) to give example compound II. I are used in the prevention or treatment of T cell mediated diseases. IC ICM C07D401-12 C07D239-94; C07D401-14; C07D405-14; C07D403-12; C07D405-12; C07D409-12; C07D409-14; C07D413-12; A61K031-505; A61P037-02 CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 63

II

N-tert-Butoxycarbonyl-4-hydroxymethylpiperidine 142851-03-4P, Ethyl

123855-51-6P,

162364-72-9P,

19748-66-4P, N-(3-Hydroxypropyl)pyrrolidine

N-tert-butoxycarbonylpiperidine-4-carboxylate

IT

```
7-Benzyloxy-4-chloro-6-methoxyquinazoline
                                             166815-96-9P,
N-tert-Butoxycarbonyl-4-(4-toluenesulfonyloxymethyl)piperidine
179688-03-0P, 7-Acetoxy-4-chloro-6-methoxyquinazoline
6-Acetoxy-4-chloro-7-methoxyquinazoline 264208-58-4P, Ethyl
4-(N-tert-butoxycarbonylpiperidin-4-ylmethoxy)-3-methoxybenzoate
264208-60-8P, Ethyl 3-methoxy-4-(N-methylpiperidin-4-ylmethoxy)benzoate
264208-63-1P, Ethyl 5-methoxy-4-(N-methylpiperidin-4-ylmethoxy)-2-
nitrobenzoate 264208-66-4P, Ethyl 2-amino-5-methoxy-4-(N-methylpiperidin-
                       264208-69-7P, 6-Methoxy-7-(N-methylpiperidin-4-
4-ylmethoxy) benzoate
ylmethoxy) -3,4-dihydroquinazolin-4-one
                                          264208-72-2P,
4-Chloro-6-methoxy-7-(N-methylpiperidin-4-ylmethoxy)quinazoline
320365-36-4P, 1-(2,6-Dimethylphenyl)-3-[6-methoxy-7-((N-methylpiperidin-4-
                                     320365-37-5P, 1-(2,6-Dichlorophenyl)-
yl) methoxy) quinazolin-4-yl] thiourea
3-[6-methoxy-7-((N-methylpiperidin-4-yl)methoxy)quinazolin-4-yl]thiourea
320365-38-6P, 1-(2,6-Difluorophenyl)-3-[6-methoxy-7-(N-methylpiperidin-4-
ylmethoxy) quinazolin-4-yl]thiourea
                                     320365-39-7P, 1-(2-Chloro-6-
methylphenyl)-3-[6-methoxy-7-((N-methylpiperidin-4-yl)methoxy)quinazolin-4-
              320365-42-2P, 1-(2,5-Dimethylphenyl)-3-[6-methoxy-7-(N-
methylpiperidin-4-ylmethoxy)quinazolin-4-yl]thiourea
                                                        320365-44-4P,
1-(2,6-Difluorophenyl)-3-[6-methoxy-7-(3-(pyrrolidin-1-
yl)propoxy)quinazolin-4-yl]thiourea 320365-45-5P
                                                      320365-46-6P,
1-(2,6-Dimethylphenyl)-3-[6-methoxy-7-[2-(2-methoxyethoxy)ethoxy]quinazoli
                  320365-47-7P, 1-(2,6-Dimethylphenyl)-3-[6-methoxy-7-(2-
n-4-yl]thiourea
morpholinoethoxy) quinazolin-4-yl] thiourea
                                            320365-48-8P,
1-(2,6-Dimethylphenyl)-3-[6-methoxy-7-(3-morpholinopropoxy)quinazolin-4-
              320365-49-9P, 1-(2,6-Dimethylphenyl)-3-(7-
(cyclopropyl) methoxy-6-methoxyquinazolin-4-yl) thiourea
                                                          320365-50-2P,
1-(2-Chloro-6-methylphenyl)-3-[6-methoxy-7-(2-morpholinoethoxy)quinazolin-
                320365-52-4P, 1-(2-Methylphenyl)-3-[6-methoxy-7-((N-
4-yl]thiourea
methylpiperidin-4-yl) methoxy) quinazolin-4-yl] thiourea
                                                         320365-53-5P,
1-(2,6-Dimethylphenyl)-3-[6-methoxy-7-(2-(pyrrolidin-1-
yl) ethoxy) quinazolin-4-yl] thiourea 320365-81-9P,
4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-((N-methylpiperidin-4-
yl) methoxy) quinazoline
                         320365-82-0P, 4-Amino-6-methoxy-7-(N-
methylpiperidin-4-ylmethoxy) quinazoline
                                           320365-90-0P,
4-Amino-7-hydroxy-6-methoxyquinazoline
                                          320365-91-1P,
4-Amino-6-methoxy-7-(3-morpholinopropoxy)quinazoline
                                                         320365-93-3P,
4-Amino-6-methoxy-7-(3-(pyrrolidin-1-yl)propoxy)quinazoline
320366-00-5P, 7-Acetoxy-4-(2-bromo-4-fluorophenoxy)-6-
methoxyquinazoline 320366-01-6P, 4-(2-Bromo-4-fluorophenoxy)-7-
hydroxy-6-methoxyquinazoline
                                320366-08-3P, 4-Amino-6-methoxy-7-(2-
(pyrrolidin-1-yl) ethoxy) quinazoline 320366-09-4P,
4-(2-Bromo-4-fluorophenoxy)-6-methoxy-7-(2-(pyrrolidin-1-
yl)ethoxy)quinazoline
                       320366-10-7P, 4-Amino-6-methoxy-7-(2-
morpholinoethoxy) quinazoline 320366-11-8P, 4-(2-Bromo-4-
fluorophenoxy) -6-methoxy-7-(2-morpholinoethoxy)quinazoline
                                                               320366-12-9P,
4-Amino-6-methoxy-7-[2-(2-methoxyethoxy)ethoxy]quinazoline
320366-13-0P, 4-(2-Bromo-4-fluorophenoxy)-6-methoxy-7-[2-(2-
methoxyethoxy) ethoxy] quinazoline 320366-45-8P,
4-(4-Bromo-2-fluorophenoxy)-7-cyclopropylmethoxy-6-methoxyquinazoline
320366-46-9P, 4-Amino-7-cyclopropylmethoxy-6-methoxyquinazoline
320367-02-0P, 4-Amino-7-benzyloxy-6-methoxyquinazoline
                                                          385814-17-5P,
1-(2-Methylphenyl)-3-[6-methoxy-7-(2-morpholinoethoxy)quinazolin-4-
              385814-18-6P, 1-(2-Chlorophenyl)-3-[6-methoxy-7-(2-
yl]thiourea
morpholinoethoxy)quinazolin-4-yl]thiourea
                                             385814-19-7P,
1-(2,6-Dichlorophenyl)-3-[6-methoxy-7-(2-morpholinoethoxy)quinazolin-4-
              385814-20-0P, 1-(7-Benzyloxy-6-methoxyquinazolin-4-yl)-3-
yl]thiourea
                               385814-21-1P, 1-(2,6-Dimethylphenyl)-3-[6-
(2,6-dimethylphenyl)thiourea
methoxy-7-(2-pyridylmethoxy)quinazolin-4-yl]thiourea 385814-22-2P
, 4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-(2-pyridylmethoxy)quinazoline
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385814-23-3P, 4-Amino-6-methoxy-7-(2-pyridylmethoxy)quinazoline
385814-25-5P 385814-27-7P, 4-(2-Bromo-4-fluorophenoxy)-7-((N-
(tert-butoxycarbonyl)piperidin-4-yl)methoxy)-6-methoxyquinazoline
385814-28-8P, 4-Amino-7-(N-tert-butoxycarbonylpiperidin-4-ylmethoxy)-6-
                    385814-29-9P, 1-(2,6-Dimethylphenyl)-3-[7-(N-tert-
methoxyguinazoline
butoxycarbonylpiperidin-4-ylmethoxy)-6-methoxyquinazolin-4-yl]thiourea
385814-30-2P, 1-(2,6-Dimethylphenyl)-3-(6-methoxy-7-piperidin-4-ylmethoxyquinazolin-4-yl)thiourea 385814-31-3P, 1-[7-(N-Benzylmorpholin-
3-ylmethoxy)-6-methoxyquinazolin-4-yl]-3-(2,6-dimethylphenyl)thiourea
385814-32-4P, 7-((N-Benzylmorpholin-3-yl)methoxy)-4-(2-bromo-4-
                                      385814-33-5P, 1-[7-(N-
fluorophenoxy)-6-methoxyquinazoline
Benzylmorpholin-2-ylmethoxy)-6-methoxyquinazolin-4-yl]-3-(2,6-
dimethylphenyl)thiourea 385814-37-9P, 7-(N-Benzylmorpholin-2-
ylmethoxy) -4-(2-bromo-4-fluorophenoxy) -6-methoxyquinazoline
385814-38-0P, 1-[6-Methoxy-7-(N-methylpiperidin-4-ylmethoxy)quinazolin-4-
yl]-3-(2-methoxyphenyl)thiourea 385814-39-1P, 1-(2-Ethylphenyl)-3-[6-
methoxy-7-((N-methylpiperidin-4-yl)methoxy)quinazolin-4-yl]thiourea
385814-40-4P, 1-(2-Bromophenyl)-3-[6-methoxy-7-((N-methylpiperidin-4-
yl)methoxy)quinazolin-4-yl]thiourea 385814-41-5P, 1-(2,6-Dimethylphenyl)-
3-[6-methoxy-7-((N-methylpiperidin-3-yl)methoxy)quinazolin-4-yl]thiourea
385814-43-7P, 4-Amino-7-(3-(dipropylamino)propyn-1-yl)-6-
methoxyquinazoline 385814-44-8P, 4-(2-Bromo-4-fluorophenoxy)-7-
(3-(dipropylamino)propyn-1-yl)-6-methoxyquinazoline
                                                      385814-57-3P,
1-[6-(1,4-Benzodioxan-2-ylmethoxy)-7-methoxyquinazolin-4-yl]-3-(2,6-
dimethylphenyl)thiourea 385814-58-4P, 4-(4-Chloro-2-
fluorophenoxy)-6-hydroxy-7-methoxyquinazoline 385814-59-5P,
6-(1,4-Benzodioxan-2-ylmethoxy)-4-(4-chloro-2-fluorophenoxy)-7-
                   385814-60-8P, 1-[6-((Cyclohex-1-en-4-yl)methoxy)-7-
methoxyquinazoline
methoxyquinazolin-4-yl]-3-(2,6-dimethylphenyl)thiourea
385814-61-9P, 6-((Cyclohex-1-en-4-yl)methoxy)-4-(4-chloro-2-
fluorophenoxy) -7-methoxyquinazoline
                                     385814-62-0P, 1-(2,6-Dimethylphenyl)-
3-[7-methoxy-6-((tetrahydropyran-4-yl)oxy)quinazolin-4-yl]thiourea
385814-63-1P, 6-Hydroxy-4-(4-methoxybenzylamino)-7-methoxyquinazoline
385814-64-2P, 4-(4-Methoxybenzylamino)-7-methoxy-6-((tetrahydropyran-4-
yl)oxy)quinazoline
                     385814-66-4P, 1-(2,6-Dimethylphenyl)-3-(7-methoxy-6-
((tetrahydropyran-2-yl)methoxy)quinazolin-4-yl)thiourea
                                                           385814-67-5P,
4-(4-Methoxybenzylamino)-7-methoxy-6-((tetrahydropyran-2-
yl) methoxy) quinazoline
                        385814-71-1P, 1-(2,6-Dimethylphenyl)-3-(7-methoxy-
6-((tetrahydrofuran-3-yl)oxy)quinazolin-4-yl)thiourea
                                                         385814-72-2P,
4-(4-Methoxybenzylamino)-7-methoxy-6-((tetrahydrofuran-3-
                    385814-73-3P, 1-(2,6-Dimethylphenyl)-3-(7-methoxy-6-
yl)oxy)quinazoline
((tetrahydrofuran-2-yl)methoxy)quinazolin-4-yl)thiourea
                                                           385814-74-4P,
4-(4-Methoxybenzylamino)-7-methoxy-6-((tetrahydrofuran-2-
                         385814-75-5P, 1-(2,6-Dimethylphenyl)-3-(7-methoxy-
yl) methoxy) quinazoline
6-((tetrahydrofuran-3-yl)methoxy)quinazolin-4-yl)thiourea
                                                             385814-76-6P,
4-(4-Methoxybenzylamino)-7-methoxy-6-((tetrahydrofuran-3-
yl) methoxy) quinazoline
                         385814-77-7P, 1-(2,6-Dimethylphenyl)-3-[7-methoxy-
6-[2-(2-methoxyethoxy)ethoxy]quinazolin-4-yl]thiourea
                                                        385814-78-8P,
4-(4-Methoxybenzylamino)-7-methoxy-6-[2-(2-methoxyethoxy)ethoxy]quinazolin
    385814-79-9P, 1-(2,6-Dimethylphenyl)-3-[7-methoxy-6-(3-
morpholinopropoxy) quinazolin-4-yl] thiourea
                                             385814-80-2P,
1-(2,6-Dimethylphenyl)-3-[7-methoxy-6-((2,2-dimethyl-1,3-dioxolan-4-
yl) methoxy) quinazolin-4-yl] thiourea 385814-81-3P,
4-(4-Chloro-2-fluorophenoxy)-6-((2,2-dimethyl-1,3-dioxolan-4-yl)methoxy)-7-
                     385814-90-4P
                                    385814-94-8P, 3-[7-(2-
methoxyquinazoline
Morpholinoethoxy)quinazolin-4-yl]thiourea
                                             385814-95-9P,
7-(2-Morpholinoethoxy)-3,4-dihydroquinazolin-4-one
                                                      385814-96-0P,
4-Chloro-7-(2-morpholinoethoxy)quinazoline
                                              385814-97-1P,
4-Amino-7-(2-morpholinoethoxy)quinazoline
                                             385814-98-2P,
1-(2,6-Dimethylphenyl)-3-[7-(2-morpholinoethoxy)quinazolin-4-yl]thiourea
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate; synthesis of guanidine derivs. of quinazoline and
        quinoline for use in treatment of autoimmune diseases)
ΙT
     97-99-4, Tetrahydrofuran-2-ylmethanol
                                             100-72-1
                                                         100-79-8,
                                              111-77-3, 2-(2-
     2,2-Dimethyl-1,3-dioxolan-4-ylmethanol
                           123-75-1, Pyrrolidine, reactions
     Methoxyethoxy) ethanol
                                                                 141-43-5,
                                151-18-8, 3-Aminopropionitrile
     2-Aminoethanol, reactions
                                                                   348-62-9,
     4-Chloro-2-fluorophenol 446-32-2, 4-Fluoroanthranilic acid 3-Hydroxytetrahydrofuran 496-69-5, 2-Bromo-4-fluorophenol
                                                                    453-20-3,
                                                                    614-69-7,
     2-Methylphenyl isothiocyanate
                                    617-05-0, Ethyl 4-hydroxy-3-
                      622-40-2, N-(2-Hydroxyethyl)morpholine
                                                                627-30-5,
     methoxybenzoate
                        1126-09-6, Ethylpiperidine-4-carboxylate
     3-Chloropropanol
     (Cyclohex-1-en-4-yl) methanol
                                   2081-44-9, 4-Hydroxytetrahydropyran
     2105-94-4, 4-Bromo-2-fluorophenol
                                         2393-23-9, 4-Methoxybenzylamine
     2740-81-0, 2-Chlorophenyl isothiocyanate 3240-94-6, 2-Morpholinoethyl
                3288-04-8, 2-Methoxyphenyl isothiocyanate
     chloride
                           3663-82-9, 2-Hydroxymethyl-1,4-benzodioxan
     Formamidine acetate
     4441-30-9, N-(3-Hydroxypropyl)morpholine
                                               5050-41-9, 2-Pyrrolidin-1-
                       5911-08-0, Cyclopropylmethyl chloride
                                                                6323-79-1,
     ylethyl chloride
     3-(Dipropylamino)propyne
                               6590-95-0, 2,6-Dichlorophenyl isothiocyanate
     6959-47-3, 2-Pyridylmethyl chloride hydrochloride
                                                         7583-53-1,
     1-Methyl-3-piperidinemethanol
                                    10312-83-1, Methoxyacetaldehyde
                                    niocyanate 13220-33-2,
13404-22-3 15833-61-1,
     13037-60-0, 2-Bromophenyl isothiocyanate
     3-Hydroxy-N-methylpyrrolidine
                                    16499-57-3, 7-Fluoro-3,4-dihydroquinazolin-
     Tetrahydrofuran-3-ylmethanol
             19241-15-7, 2,5-Dimethylphenyl isothiocyanate
                                                              19241-16-8,
     2,6-Dimethylphenyl isothiocyanate 19241-19-1, 2-Ethylphenyl
     isothiocyanate 19241-34-0, 2-Chloro-6-methylphenyl isothiocyanate
     22195-47-7, ((2,2-Dimethyl-1,3-dioxolan-4-yl)methyl)amine
                          27489-62-9, trans-4-Hydroxycyclohexylamine
     Glycine methylamide
     50586-80-6, 2-(2-Methoxyethoxy) ethyl tosylate
                                                     51387-90-7,
     2-(N-Methylpyrrolidin-2-yl)ethylamine
                                            59531-86-1
                                                          67863-05-2
     71034-40-7
                  75007-28-2
                              88277-83-2, 2-Aminomethyl-1,4-dioxane
     179688-01-8, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one
                                207974-17-2, 2,6-Difluorophenyl isothiocyanate
     179688-02-9
                  179688-53-0
     288384-43-0, 4-(4-Bromo-2-fluorophenoxy)-7-hydroxy-6-
     methoxyquinazoline 320366-38-9, 4-(2-Bromo-4-fluorophenoxy)-6-
     methoxy-7-(((trifluoromethane)sulfonyl)oxy)quinazoline
                                                               320366-66-3.
     4-Amino-7-methoxy-6-(3-morpholinopropoxy)quinazoline
                                                            385814-24-4
     385814-26-6, N-tert-Butoxycarbonyl-4-(4-benzenesulfonyloxymethyl)piperidin
                      385814-42-6, 4-Amino-6-methoxy-7-((N-methylpiperidin-3-
         385814-36-8
     yl) methoxy) quinazoline 385814-46-0, 3-[6-Methoxy-7-((N-methylpiperidin-4-
     yl) methoxy) quinazolin-4-yl] thiourea
                                           385814-89-1, N-(7-Hydroxy-6-
     methoxyquinazolin-4-yl)-N'-(2,6-dimethylphenyl)-N''-[2-(N-methylpyrrolidin-
     2-yl)ethyl]guanidine
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reactant; synthesis of guanidine derivs. of quinazoline and quinoline
        for use in treatment of autoimmune diseases)
     320365-81-9P, 4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-((N-
IT
     methylpiperidin-4-yl) methoxy) quinazoline 320366-00-5P,
     7-Acetoxy-4-(2-bromo-4-fluorophenoxy)-6-methoxyquinazoline
     320366-01-6P, 4-(2-Bromo-4-fluorophenoxy)-7-hydroxy-6-
     methoxyquinazoline 320366-09-4P, 4-(2-Bromo-4-fluorophenoxy)-6-
     methoxy-7-(2-(pyrrolidin-1-yl)ethoxy)quinazoline 320366-11-8P,
     4-(2-Bromo-4-fluorophenoxy)-6-methoxy-7-(2-morpholinoethoxy)quinazoline
     320366-13-0P, 4-(2-Bromo-4-fluorophenoxy)-6-methoxy-7-[2-(2-
     methoxyethoxy) ethoxy] quinazoline 320366-45-8P,
     4-(4-Bromo-2-fluorophenoxy)-7-cyclopropylmethoxy-6-methoxyquinazoline
     385814-22-2P, 4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-(2-
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#### Troung 10/088,854

pyridylmethoxy) quinazoline 385814-27-7P, 4-(2-Bromo-4fluorophenoxy) -7-((N-(tert-butoxycarbonyl)piperidin-4-yl)methoxy)-6methoxyquinazoline 385814-32-4P, 7-((N-Benzylmorpholin-3yl) methoxy) -4-(2-bromo-4-fluorophenoxy) -6-methoxyquinazoline 385814-37-9P, 7-(N-Benzylmorpholin-2-ylmethoxy)-4-(2-bromo-4fluorophenoxy) -6-methoxyquinazoline 385814-44-8P, 4-(2-Bromo-4-fluorophenoxy)-7-(3-(dipropylamino)propyn-1-yl)-6methoxyquinazoline 385814-58-4P, 4-(4-Chloro-2-fluorophenoxy)-6hydroxy-7-methoxyquinazoline 385814-59-5P, 6-(1,4-Benzodioxan-2ylmethoxy) -4-(4-chloro-2-fluorophenoxy) -7-methoxyquinazoline 385814-61-9P, 6-((Cyclohex-1-en-4-yl)methoxy)-4-(4-chloro-2fluorophenoxy) -7-methoxyquinazoline 385814-81-3P, 4-(4-Chloro-2-fluorophenoxy)-6-((2,2-dimethyl-1,3-dioxolan-4-yl)methoxy)-7methoxyquinazoline RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; synthesis of guanidine derivs. of quinazoline and quinoline for use in treatment of autoimmune diseases) 320365-81-9 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-[(1-methyl-4-RN CN piperidinyl)methoxy] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & & \\ & \text{N} & \\ & \text{CH}_2 - \\ & \text{MeO} & \\ & & \text{F} \\ & & \\ & & \text{Br} \end{array}$$

RN320366-01-6 CAPLUS

7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX CN

RN

320366-09-4 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(1-CN pyrrolidinyl)ethoxy] - (9CI) (CA INDEX NAME)

$$N-CH_2-CH_2-O$$
 $MeO$ 
 $Br$ 

RN

320366-11-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(4-CN morpholinyl)ethoxyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

320366-13-0 CAPLUS RN

Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(2-CNmethoxyethoxy) - (9CI) (CA INDEX NAME)

RN

320366-45-8 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(cyclopropylmethoxy)-6-methoxy-CN (9CI) (CA INDEX NAME)

RN

385814-22-2 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-(2-pyridinylmethoxy)-(9CI) (CA INDEX NAME)

385814-27-7 CAPLUS RN

1-Piperidinecarboxylic acid, 4-[[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-CNquinazolinyl]oxy]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

385814-32-4 CAPLUS RN

Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[[4-(phenylmethyl)-3-CNmorpholinyl]methoxy] - (9CI) (CA INDEX NAME)

RN

385814-37-9 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[[4-(phenylmethyl)-2-CN morpholinyl]methoxy] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2 & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

385814-44-8 CAPLUS RN

2-Propyn-1-amine, 3-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-N,N-dipropyl- (9CI) (CA INDEX NAME) CN

$$(n-Pr)_2N-CH_2-C = C$$
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 

RN385814-58-4 CAPLUS

6-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-7-methoxy- (9CI) (CA INDEX CN

RN

385814-59-5 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-[(2,3-dihydro-1,4-benzodioxin-CN2-yl)methoxy]-7-methoxy- (9CI) (CA INDEX NAME)

RN

385814-61-9 CAPLUS .
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-(3-cyclohexen-1-ylmethoxy)-7-CN methoxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{MeO} & \text{N} \\ & \text{CH}_2 - \text{O} & \text{N} \\ & & \text{C}_1 \\ & & \text{C}_1 \\ & & \text{C}_1 \\ & & & \text{C}_1 \\ & & & \\ & &$$

RN

385814-81-3 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-[(2,2-dimethyl-1,3-dioxolan-4-CN yl)methoxy]-7-methoxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \\ \text{MeO} \\ \text{O} \\ \text{CH}_2 - \text{O} \\ \text{O} \\ \text{F} \\ \text{C1} \\ \end{array}$$

ΙT 288384-43-0, 4-(4-Bromo-2-fluorophenoxy)-7-hydroxy-6methoxyquinazoline 320366-38-9, 4-(2-Bromo-4-fluorophenoxy)-6methoxy-7-(((trifluoromethane)sulfonyl)oxy)quinazoline

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; synthesis of guanidine derivs. of quinazoline and quinoline for use in treatment of autoimmune diseases)

RN 288384-43-0 CAPLUS

CN 7-Quinazolinol, 4-(4-bromo-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX NAME)

RN 320366-38-9 CAPLUS

CN Methanesulfonic acid, trifluoro-, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl ester (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:676589 CAPLUS

DOCUMENT NUMBER:

135:227013

TITLE:

Preparation of quinazolinylureas and analogs as VEGF

receptor antagonists

INVENTOR(S):

Hennequin, Laurent Francois Andre; Crawley, Graham Charles; McKerrecher, Darren; Ple, Patrick; Poyser,

Jeffrey Philip; Lambert, Christine Marie Paul

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 170 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

·Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                                         KIND
                                                   DATE
                                                                                  APPLICATION NO.
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                                           A2
                                                     20010913
                                                                                  WO 2001-GB863
                                                                                                                   20010301
         WO 2001066099
                                           Α3
                                                     20020321
         WO 2001066099
                W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          A2 20030108
                                                                                 EP 2001-907938 20010301
         EP 1272185
                R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
         JP 2003525897
                                           T2
                                                     20030902
                                                                                  JP 2001-564752
                                                                                                                   20010301
         US 2003225111
                                           A1
                                                      20031204
                                                                                  US 2002-220140
                                                                                                                   20020828
                                                                             EP 2000-400595
                                                                                                          Α
                                                                                                                   20000306
PRIORITY APPLN. INFO.:
                                                                            WO 2001-GB863
                                                                                                             W 20010301
                                               MARPAT 135:227013
OTHER SOURCE(S):
```

AB Q1NR2C(:X)NR3Q2 [I; Q1 = e.g., (un)substituted 4-quinazolinyl; Q2 =
 (un)substituted (hetero)aryl(alkyl), cycloalkyl, etc.; R2,R3 = H or alkyl;
 R2R3 = (CH2)1-3; X = O, S, NCN, (alkyl)imino] were prepared Thus, Et
 piperidine-4-carboxylate was converted in 7 steps to Et
 2-amino-5-methoxy-4-(1-methylpiperidine-4-ylmethoxy)benzoate which was
 cyclocondensed with HC(:NH)NH2.HOAc and the product converted in 4 steps
 to title compound II. Data for biol. activity of I were given.
IC ICM A61K031-00
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 1

IT 104-16-5P 2058-49-3P, 3-Methylsulfonyl-1-propanol 4332-48-3P 5317-33-9P 5464-12-0P 7357-67-7P 13280-07-4P, 4-Chloro-2-butyne-1-ol 14597-28-5P 16229-25-7P 16234-10-9P, 3,4-Dihydrothieno[3,2-d]pyrimidin-4-one 16269-66-2P, 4-Chlorothieno[3,2-d]pyrimidine 16499-57-3P, 7-Fluoro-3,4-dihydroquinazolin-4-one 19748-66-4P, 1-Pyrrolidinepropanol

GI

```
123855-51-6P, 1-tert-Butoxycarbonylpiperidine-4-methanol
                                                            142851-03-4P,
Ethyl 1-tert-butoxycarbonylpiperidine-4-carboxylate 162364-72-9P,
7-Benzyloxy-4-chloro-6-methoxyquinazoline 166815-96-9P
                                                            179688-01-8P,
7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one
                                                     179688-03-0P,
7-Acetoxy-4-chloro-6-methoxyquinazoline
                                           193002-14-1P,
7-Benzyloxy-3,4-dihydroquinazolin-4-one
                                           193002-24-3P,
7-Benzyloxy-6-methoxy-3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
193002-25-4P, 7-Hydroxy-6-methoxy-3-pivaloyloxymethyl-3,4-
dihydroguinazolin-4-one 199327-59-8P
                                        199327-61-2P
205194-33-8P, 3-(1,1-Dioxotetrahydro-4H-1,4-thiazin-4-yl)propan-1-ol
220896-01-5P, 7-Benzyloxy-3,4-dihydroquinazolin-4-thione
7-Benzyloxy-4-methylthioquinazoline 220896-07-1P, 7-Hydroxy-4-methylthioquinazoline 220896-09-3P, 4-Methylthio-7-(3-
                                220896-44-6P
morpholinopropoxy) quinazoline
                                                220896-53-7P,
7-[3-(1,1-Dioxotetrahydro-4H-1,4-thiazin-4-yl)propoxy]-4-
methylthioquinazoline
                        230955-75-6P
                                       264208-58-4P
                                                      264208-60-8P
               264208-66-4P
                              264208-69-7P
                                              264208-72-2P
264208-63-1P
288383-71-1P, 4-Chloro-6-methoxy-7-(3-piperidinopropoxy)quinazoline
288383-72-2P, 7-(3-Bromopropoxy)-6-methoxy-3-pivaloyloxymethyl-3,4-
                          288383-73-3P, 6-Methoxy-7-(3-piperidinopropoxy)-
dihydroguinazolin-4-one
3-pivaloyloxymethyl-3,4-dihydroquinazolin-4-one
                                                   288383-74-4P,
6-Methoxy-7-(3-piperidinopropoxy)-3,4-dihydroquinazolin-4-one
288384-43-0P, 4-(4-Bromo-2-fluorophenoxy)-7-hydroxy-6-
                     288385-51-3P, 1H-1,2,3-Triazole-1-propanol
methoxyquinazoline
               320365-82-0P
                              320365-83-1P, 4-Amino-6-methoxy-7-(3-
320365-81-9P
                                320365-84-2P
                                               320365-85-3P,
piperidinopropoxy) quinazoline
4-Amino-7-[3-(1,1-dioxotetrahydro-4H-1,4-thiazin-4-yl)propoxy]quinazoline
               320365-87-5P
                              320365-88-6P
                                              320365-89-7P
320365-86-4P
                                                             320365-90-0P,
4-Amino-7-hydroxy-6-methoxyquinazoline
                                         320365-91-1P
                                                         320365-92-2P
                              320365-95-5P
                                              320365-96-6P
320365-93-3P
               320365-94-4P
                                                             320365-97-7P
320365-98-8P 320366-00-5P, 7-Acetoxy-4-(2-bromo-4-fluorophenoxy)-
6-methoxyquinazoline 320366-01-6P 320366-02-7P
320366-03-8P
               320366-04-9P 320366-05-0P
                                            320366-06-1P
320366-07-2P
               320366-08-3P 320366-09-4P
                                            320366-10-7P
320366-11-8P
               320366-12-9P 320366-13-0P
                                            320366-14-1P
320366-15-2P
               320366-16-3P
                              320366-17-4P
                                              320366-18-5P
                                                             320366-19-6P
320366-20-9P
               320366-21-0P
                              320366-22-1P
                                              320366-23-2P
                                                             320366-24-3P
320366-25-4P
               320366-26-5P
                              320366-27-6P
                                              320366-28-7P
                                                             320366-29-8P
               320366-31-2P 320366-32-3P 320366-33-4P
320366-30-1P
320366-34-5P
               320366-35-6P
                              320366-36-7P
                                              320366-37-8P
320366-38-9P 320366-39-0P 320366-41-4P
320366-42-5P 320366-43-6P 320366-44-7P
320366-45-8P
               320366-46-9P
                              320366-47-0P 320366-48-1P
320366-49-2P
               320366-50-5P
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                                              320366-52-7P
320366-53-8P 320366-54-9P 320366-55-0P
320366-56-1P
               320366-57-2P
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                                              320366-59-4P
320366-60-7P
               320366-61-8P
                              320366-62-9P
                                              320366-64-1P
320366-65-2P
               320366-66-3P
                              320366-67-4P
                                              320366-68-5P
320366-69-6P
               320366-70-9P
                              320366-71-0P
                                              320366-72-1P
                                                             320366-73-2P,
                                                               320366-75-4P
Methyl 4-amino-5-carbamoyl-2-hydroxybenzoate
                                                320366-74-3P
                              320366-78-7P
                                                             320366-80-1P
320366-76-5P
               320366-77-6P
                                              320366-79-8P
320366-81-2P
               320366-82-3P
                              320366-83-4P
                                              320366-99-2P
320367-02-0P, 4-Amino-7-Benzyloxy-6-methoxyquinazoline
359701-48-7P
               359701-50-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (preparation of quinazolinylureas and analogs as VEGF receptor antagonists)
288384-43-0P, 4-(4-Bromo-2-fluorophenoxy)-7-hydroxy-6-
methoxyquinazoline 320365-81-9P 320366-00-5P,
7-Acetoxy-4-(2-bromo-4-fluorophenoxy)-6-methoxyquinazoline
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IT

# Troung 10/088,854

320366-01-6P 320366-02-7P 320366-03-8P 320366-05-0P 320366-07-2P 320366-09-4P 320366-11-8P 320366-13-0P 320366-32-3P 320366-33-4P 320366-38-9P 320366-39-0P 320366-41-4P 320366-42-5P 320366-43-6P 320366-44-7P 320366-45-8P 320366-48-1P 320366-53-8P 320366-54-9P 320366-55-0P 320366-56-1P 320366-65-2P 320366-81-2P 359701-48-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of quinazolinylureas and analogs as VEGF receptor antagonists) 288384-43-0 CAPLUS RN7-Quinazolinol, 4-(4-bromo-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX CN NAME)

RN 320365-81-9 CAPLUS
CN Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-[(1-methyl-4-piperidinyl)methoxy]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & & \\ & & \\ & & \\ \text{MeO} & & \\ &$$

RN 320366-00-5 CAPLUS
CN 7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-, acetate (ester) (9CI) (CA INDEX NAME)

320366-01-6 CAPLUS RN

7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX CN

RN

320366-02-7 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CN piperazinyl)propoxy] - (9CI) (CA INDEX NAME)

RN

320366-03-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(4-morpholinyl)propoxy]- (9CI) (CA INDEX NAME) CN

RN

320366-05-0 CAPLUS Ethanamine, 2-[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]-N,N-dimethyl- (9CI) (CA INDEX NAME) CN

320366-07-2 CAPLUS RN

2-Imidazolidinone, 1-[2-[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-CN quinazolinyl]oxy]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN320366-09-4 CAPLUS

Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(1-CN

pyrrolidinyl)ethoxy] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & \\ & &$$

RN

320366-11-8 CAPLUS
Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(4-CNmorpholinyl)ethoxy] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN

320366-13-0 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(2-CNmethoxyethoxy) - (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-CH}_2\text{-CH}_2\text{-CH}_2\text{-CH}_2\text{-CH}_2\text{-O} \\ \text{MeO} \end{array}$$

RN 320366-32-3 CAPLUS

CNQuinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(3-bromopropoxy)-6-methoxy-

## (9CI) (CA INDEX NAME)

RN 320366-33-4 CAPLUS

CN 4-Piperidinecarboxamide, 1-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & &$$

RN 320366-38-9 CAPLUS

CN Methanesulfonic acid, trifluoro-, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl ester (9CI) (CA INDEX NAME)

RN

320366-39-0 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(1-pyrrolidinyl)-1-CNpropynyl] - (9CI) (CA INDEX NAME)

$$N - CH_2 - C = C$$
 $MeO$ 
 $Br$ 
 $F$ 

RN

320366-41-4 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(4-morpholinyl)-1-CNhexynyl] - (9CI) (CA INDEX NAME)

RN

320366-42-5 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(2-methyl-1H-CNimidazol-1-yl)-1-hexynyl]- (9CI) (CA INDEX NAME)

Me N— (CH<sub>2</sub>)<sub>4</sub>-C
$$=$$
C
MeO

Br
F

320366-43-6 CAPLUS RN

2-Propyn-1-amine, 3-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-CN N, N-dimethyl- (9CI) (CA INDEX NAME)

$$Me_2N-CH_2-C = C$$
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $N$ 

RN

320366-44-7 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(4-methyl-1-CN piperazinyl) -1-hexynyl] - (9CI) (CA INDEX NAME)

$$\begin{array}{c} N \longrightarrow (CH_2)_4 - C \Longrightarrow C \longrightarrow N \\ MeO \longrightarrow N \end{array}$$

RN320366-45-8 CAPLUS

Quinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(cyclopropylmethoxy)-6-methoxy-CN

## (9CI) (CA INDEX NAME)

RN320366-48-1 CAPLUS

7-Quinazolinecarboxylic acid, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-, methyl ester (9CI) (CA INDEX NAME) CN

RN

320366-53-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-(4-methyl-1-CNpiperazinyl) - (9CI) (CA INDEX NAME)

RN 320366-54-9 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 320366-55-0 CAPLUS

CN 7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-N-[3-(4-morpholinyl)propyl]- (9CI) (CA INDEX NAME)

RN 320366-56-1 CAPLUS

CN 7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-N-[3-(1H-imidazol-1-yl)propyl]-6-methoxy- (9CI) (CA INDEX NAME)

320366-65-2 CAPLUS

Carbamic acid, [[1-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-CN quinazolinyl]oxy]propyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN320366-81-2 CAPLUS

Carbamic acid, [6-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-5-CNhexynyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN

359701-48-7 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(1-CNpyrrolidinyl)propoxy] - (9CI) (CA INDEX NAME)

$$N - (CH_2)_3 - O$$
 $MeO$ 
 $Br$ 
 $F$ 

L12 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:50631 CAPLUS

DOCUMENT NUMBER: 134:100885

TITLE: Preparation of quinazolinyl ureas, thioureas and

guanidines for use in the prevention or treatment of T

cell mediated diseases or medical conditions

INVENTOR(S): Crawley, Graham Charles; McKerrecher, Darren; Poyser,

Jeffrey Philip; Hennequin, Laurent Francois Andre;

Ple, Patrick; Lambert, Christine Marie-Paul Astrazeneca UK Limited, UK; Zeneca Pharma S.A.

PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK; Zen

SOURCE: PCT Int. Appl., 169 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.					KIND DATE			APPLICATION NO. DATE									
	WO 2001004102				A1 20010118			WO 2000-GB2566										
	W: AE, AG,															CN.	CR.	
		,,,													GH,			
															LR,			
															RO,			
			•	•	•	•		•	•		•		UG,	US,	UZ,	VN,	YU,	ZA,
			ZW,	AM,	ΑZ,	BY,	KG,	KZ,	MD,	RŲ,	ТJ,	TM						
		RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ΨG,	ZW,	ΑT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,
											MR,							
	BR 2000012157			A 20020402				BR 2000-12157 20000704										
							EP 2000-953271											
															NL,		MC.	PT.
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	IE, SI,					-	-					01 5	0071	_	2000	0704		
										JP 2001-50971								
									ZA 2001-9864									
										NO 2002-42								
PRIORITY APPLN. INFO					.:				EP 1999-401692				Α	1999	0707			
									EP 2000-401221				A	2000	0504			
									1	WO 2	000-	GB25	66	W	2000	0704		
OTHER	2 50	JURCE	(S) ·			MARPAT 134:100885												

OTHER SOURCE(S): MARPAT 134:100885

GI

The title compds. [I; Q1 = quinazoline ring optionally substituted with AB halo, CF3 or CN, or a group X1Q3 (wherein X1 = a direct bond, O; Q3 = aryl, arylalkyl, heterocyclyl, (heterocyclyl)alkyl); R2, R3 = H, alkyl; Z = O, S, NH; Q2 = aryl, arylalkyl] and their pharmaceutically-acceptable salts, useful in the prevention or treatment of T cell mediated diseases or medical conditions such as transplant rejection or rheumatoid arthritis, were prepared and formulated. E.g., a multi-step synthesis of the urea II was given. In general, activity possessed by compds. I may be demonstrated at IC50 of 0.0001- 5  $\mu M$  against enzyme p561ck binding and IC50 of  $0.001-10~\mu M$  in in vitro T cell proliferation assay (T cell receptor stimulation).

IC ICM C07D239-94

IT

ICS A61K031-505; C07D401-12; C07D403-12; C07D495-04; A61P037-06

28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CC

Section cross-reference(s): 1, 63

77-77-0, Divinyl sulfone 104-16-5, 3-(4-Methylpiperazin-1-yl)propyl 109-01-3, chloride 107-99-3, 2-Dimethylaminoethyl chloride N-Methylpiperazine 109-64-8, 1,3-Dibromopropane 109-70-6, 1-Bromo-3-chloropropane 109-83-1, 2-Methylaminoethanol 110-65-6, 2-Butyne-1,4-diol 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 123-00-2, 3-Morpholinopropylamine 123-75-1, Pyrrolidine, reactions 140-88-5, Ethyl acrylate 156-87-6, 3-Aminopropan-1-ol 288-36-8, 1,2,3-Triazole 446-32-2, 2-Amino-4-fluorobenzoic acid 496-69-5, 2-Bromo-4-fluorophenol 505-10-2, 3-Methylthiopropanol 617-05-0, Ethyl 4-hydroxy-3methoxybenzoate 627-18-9 627-30-5, 3-Chloropropanol 1013-88-3 1126-09-6, Ethyl piperidine-4-carboxylate 1458-63-5, 3-Piperidinopropyl 1943-82-4, Phenethyl isocyanate 2105-94-4, chloride 4-Bromo-2-fluorophenol 2387-20-4 2955-88-6, N-(2-Hydroxyethyl)pyrrolidine 3040-44-6, N-(2-Hydroxyethyl)piperidine 3173-56-6, Benzyl isocyanate 3240-94-6, 2-Morpholinoethyl chloride 3320-86-3, 2-Nitrophenyl isocyanate 4441-30-9, 4-(3-Hydroxypropyl)morpholine 4480-49-3, 4-Morpholinobut-2-yn-1-ol 5036-48-6, 3-(Imidazol-1-yl)propylamine 5050-41-9, 4572-03-6 2-(Pyrrolidin-1-yl)ethyl chloride 5344-27-4, 4-(2-Hydroxyethyl)pyridine 5911-08-0, Cyclopropylmethyl chloride 6482-24-2, 2-Bromoethyl methyl 7223-38-3, 3-Dimethylamino-1-propyne 7223-42-9 14649-03-7, (S)- $\alpha$ -Methylbenzyl isocyanate 16285-74-8, Thieno[3,2-d]pyrimidin-4-amine 18997-19-8, Chloromethyl pivalate 19241-16-8, 2,6-Dimethylphenyl isothiocyanate 21575-13-3, 4-Amino-6,7-dimethoxyquinazoline 22288-78-4, Methyl 3-aminothiophene-2-

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27578-60-5, 2-Piperidinoethylamine
     carboxvlate
                   24277-44-9
                                                                      33375-06-3
     35000-38-5, tert-Butoxycarbonylmethylenetriphenylphosphorane
                                                                     35019-96-6
                  39546-32-2, Piperidine-4-carboxamide
                                                         39743-20-9,
     35956-52-6
     3-(Pyrrolidin-1-yl)propyl chloride
                                         39920-37-1, 2,6-Dichlorophenyl
     isocyanate 50586-80-6
                              52808-36-3, 2-(2-Methoxyethoxy)ethyl chloride
    56651-58-2, 2-Methylbenzyl isocyanate 57260-71-6, 1-(tert-Butoxycarbonyl)piperazine 60547-98-0, 2-Amino-4-benzyloxy-5-
                                    77648-20-5, 2,4,6-Trimethoxybenzylamine
     methoxybenzamide
                       71408-00-9
     88442-63-1, 1-(1-Naphthyl)ethyl isocyanate
                                                   135632-53-0
                                                                 179688-02-9
     179688-53-0
                   184475-35-2
                                 214470-55-0
                                               320366-83-4 320366-84-5
     320366-85-6
                   320366-86-7
                                 320366-87-8
                                               320366-88-9
                                                              320366-89-0
     320366-90-3
                   320366-91-4
                                 320366-92-5
                                                320366-93-6
                                                              320366-94-7
     320366-95-8
                   320366-96-9
                                 320366-97-0
                                                320366-98-1
                                                              320366-99-2
     320367-00-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of quinazolinyl ureas, thioureas and guanidines for use in the
       prevention or treatment of T cell mediated diseases or medical
       conditions)
IT
                               5317-33-9P, 1-(3-Hydroxypropyl)-4-
     2058-49-3P
                  4332-48-3P
                                                                 14597-28-5P
                                     7357-67-7P
                                                   13280-07-4P
     methylpiperazine
                        5464-12-0P
                   16234-10-9P, Thieno[3,2-d]pyrimidin-4(1H)-one
    16229-25-7P
                                                                    16269-66-2P
                   19748-66-4P, 1-Pyrrolidinepropanol
     16499-57-3P
                                                         123855-51-6P
                    162364-72-9P
                                   166815-96-9P
     142851-03-4P
                                                   179688-01-8P,
     7-Benzyloxy-6-methoxý-3,4-dihydroquinazolin-4-one
                                                          179688-03-0P
                    193002-24-3P
                                                                  199327-61-2P
                                   193002-25-4P
                                                   199327-59-8P
     193002-14-1P
                    205194-33-8P
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     205194-13-4P
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                                   220896-53-7P
                                                   230955-75-6P
                                                                  264208-58-4P
     220896-09-3P
     264208-60-8P
                    264208-63-1P
                                   264208-66-4P
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                                                                  264208-72-2P
                    288383-71-1P
                                   288383-72-2P
                                                   288383-73-3P
                                                                  288383-74-4P
     288383-69-7P
                    288385-51-3P, 1H-1,2,3-Triazole-1-propanol
     288384-43-0P
                    320365-82-0P
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                                                                  320366-80-1P
    320366-76-5P
                    320366-77-6P
                                   320366-78-7P
     320366-81-2P
                    320366-82-3P
                                   320367-02-0P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of quinazolinyl ureas, thioureas and guanidines for use in the
       prevention or treatment of T cell mediated diseases or medical
       conditions)
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#### IT 320366-84-5

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of quinazolinyl ureas, thioureas and guanidines for use in the prevention or treatment of T cell mediated diseases or medical conditions)

RN

320366-84-5 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-CN(9CI) (CA INDEX NAME)

RN

320365-81-9 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-[(1-methyl-4-piperidinyl)methoxy]- (9CI) (CA INDEX NAME) CN

RN

320365-99-9 CAPLUS Quinazoline, 4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-[3-(1-CNpyrrolidinyl)propoxy] - (9CI) (CA INDEX NAME)

$$N-(CH_2)_3-O$$
 $MeO$ 
 $F$ 
 $O$ 
 $Br$ 

RN320366-00-5 CAPLUS

7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-, acetate (ester) CN(9CI) (CA INDEX NAME)

320366-01-6 CAPLUS RN

7-Quinazolinol, 4-(2-bromo-4-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX CN

RN

320366-02-7 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CN piperazinyl)propoxy] - (9CI) (CA INDEX NAME)

RN

320366-03-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(4-CNmorpholinyl)propoxy] - (9CI) (CA INDEX NAME)

RN

320366-05-0 CAPLUS Ethanamine, 2-[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]-CNN, N-dimethyl- (9CI) (CA INDEX NAME)

320366-07-2 CAPLUS RN

2-Imidazolidinone, 1-[2-[[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-CN quinazolinyl]oxy]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & & \\ N & CH_2 - CH_2 - O & & \\ MeO & & & \\ & & & \\ Br & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & &$$

RN

320366-09-4 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(1-CN

pyrrolidinyl)ethoxy] - (9CI) (CA INDEX NAME)

$$N - CH_2 - CH_2 - O$$
 $MeO$ 
 $Br$ 
 $F$ 

RN

320366-11-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(4-morpholinyl)ethoxy]- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} & & & \\ &$$

RN

320366-13-0 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[2-(2-CN methoxyethoxy) ethoxy] - (9CI) (CA INDEX NAME)

RN320366-32-3 CAPLUS

CNQuinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(3-bromopropoxy)-6-methoxy-

#### (9CI) (CA INDEX NAME)

RN 320366-33-4 CAPLUS

CN 4-Piperidinecarboxamide, 1-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN 320366-38-9 CAPLUS

CN Methanesulfonic acid, trifluoro-, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl ester (9CI) (CA INDEX NAME)

RN

320366-39-0 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[3-(1-pyrrolidinyl)-1-propynyl]- (9CI) (CA INDEX NAME) CN

$$\begin{array}{c|c} & & \\ & &$$

RN

320366-41-4 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(4-morpholinyl)-1-CNhexynyl] - (9CI) (CA INDEX NAME)

RN

320366-42-5 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(2-methyl-1H-CN imidazol-1-yl)-1-hexynyl]- (9CI) (CA INDEX NAME)

Me N— 
$$(CH_2)_4 - C = C$$
MeO

Br
F

RN320366-43-6 CAPLUS

CN2-Propyn-1-amine, 3-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-N, N-dimethyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me}_2\text{N}-\text{CH}_2-\text{C} \\ \\ \text{MeO} \\ \\ \text{Br} \\ \\ \text{F} \end{array}$$

RN

320366-44-7 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-[6-(4-methyl-1-CNpiperazinyl)-1-hexynyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN320366-45-8 CAPLUS

CNQuinazoline, 4-(4-bromo-2-fluorophenoxy)-7-(cyclopropylmethoxy)-6-methoxy-

## (9CI) (CA INDEX NAME)

320366-48-1 CAPLUS RN

7-Quinazolinecarboxylic acid, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-, methyl ester (9CI) (CA INDEX NAME) CN

RN

320366-53-8 CAPLUS Quinazoline, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-(4-methyl-1-CNpiperazinyl) - (9CI) (CA INDEX NAME)

RN 320366-54-9 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 320366-55-0 CAPLUS

CN 7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-6-methoxy-N-[3-(4-morpholinyl)propyl]- (9CI) (CA INDEX NAME)

RN 320366-56-1 CAPLUS

CN 7-Quinazolinamine, 4-(2-bromo-4-fluorophenoxy)-N-[3-(1H-imidazol-1-yl)propyl]-6-methoxy- (9CI) (CA INDEX NAME)

RN 320366-65-2 CAPLUS

CN Carbamic acid, [[1-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]propyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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RN 320366-81-2 CAPLUS

CN Carbamic acid, [6-[4-(2-bromo-4-fluorophenoxy)-6-methoxy-7-quinazolinyl]-5-hexynyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:573671 CAPLUS

DOCUMENT NUMBER: 133:177183

TITLE: Preparation of quinazoline derivatives as angiogenesis

inhibitors

INVENTOR(S): Hennequin, Laurent Francois Andre; Ple, Patrick;

Stokes, Elaine Sophie Elizabeth; Mckerrecher, Darren

PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK; Zeneca-Pharma S.A.

SOURCE: PCT Int. Appl., 346 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND DATE					APPLICATION NO. DATE										
WO	2000047212			A1 20000817					WO 2000-GB373							20000208			
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		SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UΑ	١, ١	UG,	US,	UΖ,	VN,	YU,	ZA,	ZW,	AM,	
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	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ	, :	ΓZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	
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		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR	2, 1	ΝE,	SN,	TD,	TG					
EP	EP 1154774			A1 20011121					EP 2000-902730						20000208				
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		ΙE,	SI,	LT,	LV,	FI,	RO												
									BR 2000-8128										
									JP 2000-598164										
					A 20021216														
								AU 2000-24475											
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										20	00-0	3B37	3	W	2000	0208			
OTHER S	OURCE		83																

GI

The title compds. (I) [wherein A = an 8-, 9-, 10-, 12- or 13-membered AB bicyclic or tricyclic ring optionally containing 1-3 O, N, and/or S heteroatoms; Z = O, NH, S, CH2, or a bond; n = 0-5; m = 0-3; R2 = H, OH, halo, CN, NO2, CF3, alkyl(sulfanyl), alkoxy, NR3N4, or R5X1; R3 and R4 = independently H or alkyl; X1 = a bond, O, CH2, OC(O), CO, S, SO, SO2, NR6CO, CONR7, SO2R8, NR9SO2, or NR10; R5 = H or (un) substituted alkyl, alkenyl, alkynyl, or heterocyclyl, etc.; R6-R10 = independently H or (alkoxy)alkyl] were prepared for use in the production of an antiangiogenic and/or vascular permeability reducing effect in warm-blooded animals. For

II

instance, II was synthesized in a 9-step sequence starting with the

cyclization of 2-amino-4-benzyloxy-5-methoxybenzamide using Gold's reagent in dioxane to form 7-benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one (84%). I and the pharmaceutically acceptable salts thereof inhibit the effects of VEGF, a property of value in the treatment of a number of disease states including cancer and rheumatoid arthritis (no data). IC ICM A61K031-505 C07D401-14; C07D413-14; C07D417-12; C07D405-12; C07D401-12 CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1 IT 622-26-4P, 2-(Piperidin-4-yl)-1-ethanol 2058-49-3P, 3-(Methylsulfonyl)-1-2380-83-8P, 5-Hydroxy-6-methoxyindole 3373-00-0P, 3603-45-0P, 2-(2-6-Hydroxy-1,2,3,4-tetrahydroquinoline Morpholinoethoxy)ethanol 4332-48-3P, Ethyl 3-(1H-1,2,3-triazol-1-4441-30-9P, 4-(3-Hydroxypropyl)morpholine yl)propanoate 5-Methoxy-2-methylbenzimidazole 5317-33-9P, 1-(3-Hydroxypropyl)-4-5318-27-4P, 6-Aminoindole 5464-12-0P, methylpiperazine 4-(2-Hydroxyethyl)-1-methylpiperazine 7357-67-7P, 1-Chloro-3morpholinopropane 7556-97-0P, 7-Hydroxyquinazoline 10312-83-1P, Methoxyacetaldehyde 13280-07-4P, 4-Chlorobut-2-yn-1-ol 13314-85-7P, 5-Hydroxy-2-methylindole 13523-92-7P, 5-Hydroxy-1-methylindole 13790-39-1P, 4-Chloro-6,7-dimethoxyquinazoline 13794-72-4P, 6,7-Dimethoxy-3,4-dihydroquinazolin-4-one 14597-28-5P, 4-(Pyrrolidin-1-yl)but-2-yn-1-ol 36729-22-3P, 2,3-Dimethyl-5-39062-69-6P, 2-Benzyloxy-5-nitrotrifluoromethylbenzene hydroxyindole 41292-66-4P, 5-Hydroxy-2-methylbenzimidazole 56058-21-0P, 1-(3-Hydroxypropyl)pyrrolidin-2,5-dione 63762-83-4P, 71082-46-7P, 3-Ethoxycarbonyl-7-6-Fluoro-5-methoxyindole 71083-05-1P, Ethyl 7-methoxy-4-oxo-1,4-dihydroquinolinemethoxyquinoline 71083-35-7P, 3-Carbamoyl-7-methoxyquinoline 3-carboxylate 71083-49-3P, 76243-24-8P, 2-Fluoro-4-nitrobenzyloxybenzene 3-Cyano-7-methoxyquinoline 77156-85-5P, 4-Chloro-3-ethoxycarbonyl-7-methoxyquinoline 84497-70-1P, 3-(1H-1,2,4-Triazol-1-yl)propan-1-ol 84497-72-3P, 3-(5-Methyl-[1,2,4]triazol-1-yl)propan-1-ol 89151-44-0P, 4-(2-Hydroxyethyl)-1-(tertbutoxycarbonyl)piperidine 89151-45-1P, 4-[2-(4-Methylphenylsulfonyloxy)ethyl]-1-tert-butoxycarbonylpiperidine 90858-86-9P, 4-Bromo-5-methoxyindole 92622-97-4P, 4-Bromo-5methoxyindole-2-carboxylic acid 121247-16-3P, 3-Acetylmethyl-1,2difluoro-4-nitrobenzene 123387-51-9P, 4,4-(Ethylenedioxy)-1-tertbutoxycarbonylpiperidine 123855-51-6P, 4-Hydroxymethyl-1-tertbutoxycarbonylpiperidine 135531-89-4P, 5-Hydroxy-4-nitroindole 135531-92-9P, 5-Methoxy-4-nitroindole 135716-09-5P, Ethyl 1-tert-butyloxycarbonyl-4-piperidinecarboxylate 162364-72-9P, 7-Benzyloxy-4-chloro-6-methoxyquinazoline 163210-40-0P, 2-[[1-(tert-Butoxycarbonyl)piperidin-4-yl]oxy]ethanol 174734-34-0P, 5-Methoxy-2-trifluoromethylindole 179688-01-8P, 7-Benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one 181950-57-2P, 4-Chloro-7-hydroxyquinoline 193001-44-4P, 7-Benzyloxy-4-chloro-6-methoxyquinazoline hydrochloride 193001-55-7P, 7-Benzyloxy-6-methoxy-4-phenoxyquinazoline 193001-56-8P, 7-Hydroxy-6-methoxy-4-phenoxyquinazoline 193001-79-5P, 4-(4-Chloro-2-fluorophenoxy)-7-hydroxy-6-methoxyquinazoline 193001-80-8P, 7-Benzyloxy-4-(4-chloro-2-fluorophenoxy)-6methoxyguinazoline 193002-14-1P, 7-Benzyloxy-3,4-dihydroquinazolin-4-one 193002-18-5P, 2-[N-Methyl-N-(pyridazin-4-yl)amino]ethanol 193002-19-6P, 2-[N-(3,6-Dichloropyridazin-4-yl)-N-methylamino]ethanol 193002-24-3P, 7-Benzyloxy-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one 193002-25-4P, 7-Hydroxy-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-193002-30-1P, 4-Chloro-7-[2-(imidazol-1dihydroquinazolin-4-one yl)ethoxy]-6-methoxyquinazoline 193002-31-2P, 7-[2-(Imidazol-1yl)ethoxy]-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one

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193002-32-3P, 7-[2-(Imidazol-1-yl)ethoxy]-6-methoxy-3,4-dihydroquinazolin-
        196194-61-3P, 6-Methoxy-7-(3-morpholinopropoxy)-4-
                    196194-62-4P, 6-Methoxy-7-(3-morpholinopropoxy)-3,4-
phenoxyquinazoline
dihydroquinazolin-4-one
                          196194-78-2P, 4-Chloro-6-methoxy-7-(2-
piperidinoethoxy) quinazoline hydrochloride
                                             196194-79-3P,
6-Methoxy-4-phenoxy-7-(2-piperidinoethoxy)quinazoline
                                                         196194-80-6P,
6-Methoxy-7-(2-piperidinoethoxy)-3,4-dihydroquinazolin-4-one
196195-13-8P, 4-Chloro-6-methoxy-7-(3-morpholinopropoxy)quinazoline
199327-69-0P, 4-Chloro-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinazoline
199327-71-4P, 3-Methoxy-4-[3-(pyrrolidin-1-yl)propoxy]benzoic acid
hvdrochloride
                199327-72-5P, 5-Methoxy-2-nitro-4-[3-(pyrrolidin-1-
                                        199327-73-6P, 5-Methoxy-2-nitro-4-199327-74-7P, 2-Amino-5-methoxy-4-
yl)propoxy]benzoic acid hydrochloride
[3-(pyrrolidin-1-yl)propoxy]benzamide
[3-(pyrrolidin-1-yl)propoxy]benzamide hydrochloride
                                                       199327-75-8P,
4-Hydroxy-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinazoline
199328-74-0P, 4-Chloro-6-methoxy-7-[2-(2-methoxyethoxy)ethoxy]quinazoline
199328-77-3P, 6-Methoxy-7-[2-(2-methoxyethoxy)ethoxy]-3-
                                       zolin-4-one 205194-11-2P,
205194-12-3P, (R)-Ethyl
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
(R) - (1-Methylpiperidin-3-yl) methanol
1-methylpiperidine-3-carboxylate 205194-13-4P, (E)-4-(Pyrrolidin-1-
yl)but-2-en-1-ol
                   205194-33-8P, 3-(1,1-Dioxothiomorpholino)-1-propanol
263400-83-5P, 4-Chloro-6-methoxy-7-[(1-methylpiperidin-3-
yl) methoxy] quinazoline 263400-84-6P, 4-(4-Chloro-2-
fluorophenoxy)-6-methoxy-7-[(1-methylpiperidin-3-yl)methoxy]quinazoline
263400-85-7P, 6-Methoxy-7-[(1-methylpiperidin-3-yl)methoxy]-3,4-
dihydroquinazolin-4-one 264208-51-7P, 7-[3-(4-Methylpiperazin-1-
yl)propoxy]-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
264208-53-9P, 6-Methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]-3,4-
                          264208-55-1P, 4-Chloro-6-methoxy-7-[3-(4-
dihydroguinazolin-4-one
methylpiperazin-1-yl)propoxy]quinazoline
                                            264208-58-4P, Ethyl
3-methoxy-4-((1-tert-butyloxycarbonylpiperidin-4-yl)methoxy)benzoate
264208-60-8P, Ethyl 3-methoxy-4-((1-methylpiperidin-4-yl)methoxy)benzoate
264208-63-1P, Ethyl 3-methoxy-4-((1-methylpiperidin-4-yl)methoxy)-6-
nitrobenzoate
                264208-66-4P, Ethyl 6-amino-3-methoxy-4-((1-
methylpiperidin-4-yl) methoxy) benzoate
                                        264208-69-7P, 6-Methoxy-7-[(1-
methylpiperidin-4-yl)methoxy]-3,4-dihydroquinazolin-4-one
                                                             264208-72-2P.
4-Chloro-6-methoxy-7-[(1-methylpiperidin-4-yl)methoxy]quinazoline
264208-86-8P, 6-Methoxy-3-[(pivaloyloxy)methyl]-7-[(1-tert-
butyloxycarbonylpiperidin-4-yl)methoxy]-3,4-dihydroquinazolin-4-one
264208-92-6P, 6-Methoxy-7-[[1-(2-methylsulfonylethyl)piperidin-4-
yl]methoxy]-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
264208-95-9P, 6-Methoxy-7-[[1-(2-methylsulfonylethyl)piperidin-4-
yl]methoxy]-3,4-dihydroquinazolin-4-one
                                          264208-98-2P,
4-Chloro-6-methoxy-7-((1-(2-methylsulfonylethyl)piperidin-4-
yl) methoxy) quinazoline 264209-07-6P, 6-Methoxy-7-(3-
methylsulfonylpropoxy)-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
264209-09-8P, 6-Methoxy-7-(3-methylsulfonylpropoxy)-3,4-dihydroquinazolin-
       264209-11-2P, 4-Chloro-6-methoxy-7-(3-
methylsulfonylpropoxy)quinazoline
                                    288383-30-2P, 4-Chloro-7-[3-(1,1-
dioxothiomorpholino)propoxy]-6-methoxyquinazoline 288383-31-3P,
4-(4-Chloro-2-fluorophenoxy)-7-[3-(1,1-dioxothiomorpholino)propoxy]-6-
                     288383-32-4P, 7-[3-(1,1-Dioxothiomorpholino)propoxy]-
methoxyquinazoline
6-methoxy-3,4-dihydroquinazolin-4-one
                                        288383-36-8P, 6-Methoxy-7-
[(piperidin-4-yl)methoxy]-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-
one hydrochloride
                   288383-62-0P, 5-Hydroxy-2-trifluoromethylindole
288383-69-7P, 2-[N-(2-Methoxyethyl)-N-methylamino]ethanol
                                                             288383-71-1P,
4-Chloro-6-methoxy-7-(3-piperidinopropoxy) quinazoline 288383-72-2P,
7-(3-Bromopropoxy)-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-
        288383-73-3P, 6-Methoxy-7-(3-piperidinopropoxy)-3-
4-one
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    288383-74-4P,
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6-Methoxy-7-(3-piperidinopropoxy)-3,4-dihydroquinazolin-4-one
288383-77-7P, 7-(2-Carboxyvinyl)-6-methoxy-4-(2-methylindol-5-
yloxy) quinazoline 288383-78-8P, 4-(4-Chloro-2-fluorophenoxy)-6-
methoxy-7-(trifluoromethylsulfonyloxy)quinazoline 288383-79-9P,
4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[2-(tert-
butoxycarbonyl)vinyl]quinazoline 288383-80-2P,
7-(2-Carboxyvinyl)-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline
288383-85-7P, 7-Hydroxy-4-(2-methylindol-5-yloxy)quinazoline
288383-86-8P, 7-Benzyloxy-4-chloroquinazoline
                                                  288383-87-9P,
7-Benzyloxy-4-(2-methylindol-5-yloxy)quinazoline
                                                      288383-91-5P,
4-(2,3-Dimethylindol-5-yloxy)-7-hydroxy-6-methoxyquinazoline
288383-93-7P, 7-Benzyloxy-4-(2,3-dimethylindol-5-yloxy)-6-
                     288384-13-4P, 3-(Ethylsulfonyl)-1-propanol
methoxyguinazoline
288384-18-9P, 4-(2,3-Dimethylindol-5-ylamino)-7-hydroxy-6-
methoxyquinazoline
                      288384-20-3P, 7-Benzyloxy-4-(2,3-dimethylindol-5-
ylamino)-6-methoxyquinazoline
                                 288384-22-5P, 3-(tert-
Butyldimethylsilyloxy)-1-(1H-1,2,4-triazolyl)propane
                                                          288384-23-6P
288384-41-8P, 4-Chloro-6-methoxy-7-[3-(N-methyl-N-
methylsulfonylamino)propoxy]quinazoline 288384-44-1P,
4-(4-Bromo-2-fluorophenoxy)-7-[3-(N-tert-butoxycarbonylamino)propoxy]-6-
methoxyquinazoline 288384-45-2P, 7-(3-Aminopropoxy)-4-(4-bromo-2-
fluorophenoxy) -6-methoxyquinazoline 288384-46-3P,
4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-[3-(N-
methylsulfonylamino)propoxy]quinazoline 288384-47-4P,
4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-[3-(N-methyl-N-
methylsulfonylamino)propoxy]quinazoline
                                            288384-48-5P
                                                            288384-53-2P,
2-Chloro-3-fluoro-7-methoxyquinoline
                                        288384-54-3P, 3-Fluoro-7-
                   288384-55-4P, 3-Fluoro-7-hydroxyquinoline
methoxyguinoline
288384-56-5P, 3-Fluoro-7-hydroxy-2-methylquinoline 288384-58-7P, 3-Fluoro-7-methoxy-2-methylquinoline 288384-60-1P, 7-(2,3-Epoxypropoxy)-
6-methoxy-4-(2-methylindol-5-yloxy)quinazoline
                                                   288384-61-2P,
5-Hydroxy-6-trifluoromethylindole 288384-62-3P, 5-Benzyloxy-2-nitro-4-
(trifluoromethyl)benzeneacetonitrile 288384-66-7P, Ethyl
7-chloro-5-hydroxyindole-2-carboxylate 288384-68-9P, Ethyl
                                          288384-72-5P 288384-74-7P
7-chloro-5-methoxyindole-2-carboxylate
, 4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methylpiperazin-1-
                        288384-77-0P, 4-Chloro-6-methoxy-7-(2-
yl)propoxy]quinazoline
piperidinoethoxy)quinazoline
                               288384-91-8P, 2-Chloro-5-
                      288384-98-5P, 3-Cyano-7-hydroxyquinoline
hydroxybenzimidazole
288385-08-0P, 6-Methoxy-7-(3-morpholinopropoxy)-4-[(1-tert-butoxycarbonyl-
1,2,3,4-tetrahydroquinolin-6-yl)oxy]quinazoline
                                                     288385-13-7P,
6-Hydroxy-4-(1-tert-butoxycarbonyl)-1,2,3,4-tetrahydroquinoline
288385-15-9P, 4-((1-tert-Butoxycarbonyl-2,3-dihydroindol-5-yl)oxy)-6-
methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinazoline
                                                      288385-24-0P,
4-((1-tert-Butoxycarbonyl-2,3-dihydroindol-5-yl)oxy)-6-methoxy-7-((1-
methylpiperidin-4-yl)methoxy)quinazoline 288385-40-0P,
7-Hydroxy-4-(indol-5-ylamino)-6-methoxyquinazoline
                                                        288385-42-2P,
7-Benzyloxy-4-(indol-5-ylamino)-6-methoxyquinazoline hydrochloride
288385-46-6P, 7-Hydroxy-6-methoxy-4-(2-methylindol-5-ylamino)quinazoline 288385-48-8P, 7-Benzyloxy-6-methoxy-4-(2-methylindol-5-ylamino)quinazoline
                288385-56-8P, 3-[(4-Methyl-4H-1,2,4-triazol-3-
hydrochloride
yl)sulfanyl]propan-1-ol 288385-69-3P, 3-[[N-(2,6-Dimethyl-4-pyridyl)-N-methyl]amino]propan-1-ol 288385-85-3P, 4-Chloro-6-methoxy-7-[(1-
(cyanomethyl)piperidin-4-yl)methoxy]quinazoline
                                                     288385-87-5P,
6-Methoxy-7-(piperidin-4-ylmethoxy)-3-[(pivaloyloxy)methyl]-3,4-
dihydroquinazolin-4-one
                          288385-88-6P, 4-Fluoro-5-hydroxy-2-methylindole
288385-89-7P, 4-Fluoro-5-methoxyindole
                                          288385-90-0P,
4-Fluoro-5-methoxy-1-tert-butoxycarbonylindole
                                                    288385-91-1P,
6-Fluoro-5-methoxy-1-tert-butoxycarbonylindole
                                                   288385-92-2P,
6-Fluoro-5-methoxy-2-methylindole 288385-93-3P, 4-Fluoro-5-methoxy-2-
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288385-96-6P, 1,2-Difluoro-3-(2,2-dimethoxypropyl)-4-
methylindole
               288385-98-8P, 3-Acetylmethyl-1-benzyloxy-2-fluoro-4-
nitrobenzene
               288385-99-9P, 3-Acetylmethyl-2-fluoro-1-methoxy-4-
nitrobenzene
               288386-02-7P, 4-Chloro-6-methoxy-7-[2-(1-methylpiperidin-4-
nitrobenzene
                       288386-04-9P, 4-Fluoro-5-hydroxyindole
yl)ethoxy]quinazoline
288386-07-2P, 7-[2-(1-(tert-Butoxycarbonyl)piperidin-4-yl)ethoxy]-6-
methoxy-3-[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
288386-09-4P, 7-[2-(Piperidin-4-yl)ethoxy]-6-methoxy-3-
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    288386-11-8P,
7-[2-(1-Methylpiperidin-4-yl)ethoxy]-6-methoxy-3-[(pivaloyloxy)methyl]-3,4-
                         288386-13-0P, 7-[2-(1-Methylpiperidin-4-
dihydroguinazolin-4-one
yl)ethoxy]-6-methoxy-3,4-dihydroquinazolin-4-one
                                                   288386-15-2P,
6-Fluoro-5-hydroxyindole
                           288386-20-9P
                                         288386-22-1P,
5-Cvanomethyl-2-fluoro-4-nitrobenzyloxybenzene
                                                 288386-29-8P,
6-Fluoro-5-hydroxy-2-methylindole
                                   288386-37-8P, (R)-7-[2-Acetoxy-3-
(pyrrolidin-1-yl)propoxy]-4-(4-fluoro-2-methylindol-5-yloxy)-6-
methoxyguinazoline
                    288386-39-0P, (R)-7-(Oxiran-2-ylmethoxy)-6-methoxy-3-
[(pivaloyloxy)methyl]-3,4-dihydroquinazolin-4-one
                                                    288386-41-4P,
(R) -7-(2-Hydroxy-3-(pyrrolidin-1-yl)propoxy)-6-methoxy-3-
((pivaloyloxy)methyl)-3,4-dihydroquinazolin-4-one
                                                    288386-43-6P,
(R)-7-[2-Hydroxy-3-(pyrrolidin-1-yl)propoxy]-6-methoxy-3,4-
dihydroquinazolin-4-one · 288386-44-7P, (R)-7-[2-Acetoxy-3-(pyrrolidin-1-
yl)propoxy]-6-methoxy-3,4-dihydroquinazolin-4-one
                                                    288386-46-9P,
(R) -7-[2-Acetoxy-3-(pyrrolidin-1-yl)propoxy]-4-chloro-6-methoxyquinazoline
288386-66-3P
               288386-71-0P, (R)-6-Methoxy-4-(2-methylindol-5-yloxy)-7-
(oxiran-2-ylmethoxy) quinazoline
                                288386-75-4P, 7-Benzyloxy-6-methoxy-4-(3-
methylindol-5-yloxy) quinazoline
                                 288387-15-5P, 4-Bromo-5-hydroxyindole
288387-21-3P, (R)-4-(Indol-5-yloxy)-6-methoxy-7-(oxiran-2-
ylmethoxy) quinazoline
                       288387-27-9P, (S)-4-(Indol-5-yloxy)-6-methoxy-7-
(oxiran-2-ylmethoxy)quinazoline
                                 288387-39-3P, (S)-6-Methoxy-4-(2-
methylindol-5-yloxy)-7-(oxiran-2-ylmethoxy)quinazoline
                                                         288387-48-4P,
Ethyl 5-hydroxy-4-nitroindole-2-carboxylate
                                             288387-49-5P,
5-Methoxy-4-nitroindole-2-carboxylic acid
                                           288387-52-0P,
7-(3-Bromopropoxy)-4-(1H-indol-5-yloxy)-6-methoxyquinazoline
288387-54-2P, (S)-5-(p-Toluenesulfonylmethyl)-1-methyl-2-pyrrolidinone
288387-58-6P, (R)-5-(p-Toluenesulfonylmethyl)-2-pyrrolidinone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (intermediate; preparation of quinazolines as angiogenesis inhibitors by
   cyclization of 2-aminobenzamides and subsequent derivatization)
                              86-79-3, 2-Hydroxycarbazole
59-31-4, 2-Hydroxyquinoline
                                                            87-13-8,
                                 90-15-3, 1-Naphthol
Diethyl ethoxymethylenemalonate
                                                        98-00-0,
2-Furanmethanol
                  100-37-8, N,N-Diethylethanolamine
                                                      100-55-0,
                         102-51-2, 4-Methoxy-1,2-phenylenediamine
3-Hydroxymethyl pyridine
104-58-5, 1-(3-Hydroxypropyl)piperidine
                                          107-13-1, 2-Propenenitrile,
                                                109-01-3,
           108-01-0, N,N-Dimethylethanolamine
reactions
1-Methylpiperazine
                    109-64-8, 1,3-Dibromopropane
                                                    109-70-6,
                         109-83-1, 2-(Methylamino)ethanol
1-Bromo-3-chloropropane
                                                             110-65-6,
2-Butyne-1,4-diol 110-89-4, Piperidine, reactions
                                                      110-91-8,
                       111-77-3, 2-(2-Methoxyethoxy)ethanol
Morpholine, reactions
                                                              112-35-6,
                                     121-34-6, 4-Hydroxy-3-methoxybenzoic
Triethylene glycol monomethyl ether
                                               123-56-8,
       123-00-2, 4-(3-Aminopropyl) morpholine
Pyrrolidine-2,5-dione
                       135-19-3, 2-Hydroxynaphthalene, reactions
137-00-8, 5-(2-Hydroxyethyl)-4-methylthiazole
                                               140-53-4,
                           140-88-5
                                      141-97-9, Ethyl acetoacetate
4-Chlorophenylacetonitrile
156-87-6, 3-Amino-1-propanol
                              177-11-7, 4,4-(Ethylenedioxy)piperidine
288-36-8, 1,2,3-Triazole 288-88-0, 1H-1,2,4-Triazole
                                                         348-62-9,
4-Chloro-2-fluorophenol
                          403-19-0, 2-Fluoro-4-nitrophenol
                                                             455-93-6,
2-Fluoro-4-nitroanisole
                          505-10-2, 3-(Methylthio)-1-propanol
                                                                533-30-2,
6-Aminobenzothiazole 536-90-3
                                 578-67-6, 5-Hydroxyquinoline
                                                                 580-16-5,
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IT

580-20-1, 7-Hydroxyquinoline 582-17-2, 6-Hydroxyquinoline 2,7-Dihydroxynaphthalene 617-05-0, Ethyl 3-methoxy-4-hydroxybenzoate 622-40-2, 4-(2-Hydroxyethyl)morpholine 622-93-5, 3-(N,N-Diethylamino)-1propanol 627-18-9, 3-Bromo-1-propanol 627-30-5, 3-Chloropropan-1-ol 628-89-7, 2-(2-Chloroethoxy)ethanol 771-69-7, 1,2,3-Trifluoro-4-777-37-7, 2-Chloro-5-nitrotrifluoromethylbenzene nitrobenzene 828-94-4, 2,3-Dimethyl-5-methoxyindole 1076-74-0, 5-Methoxy-2methylindole 1122-58-3, 4-Dimethylaminopyridine 1125-40-2, 1126-09-6, Ethyl 4-piperidinecarboxylate 3-Methyl-5-hydroxyindole 1458-63-5, 1-(3-Chloropropyl)piperidine 1484-84-0, 2-(2-Hydroxyethyl)piperidine 1615-14-1, 2-(Imidazol-1-yl)ethanol 1953-54-4, 5-Hydroxyindole 2008-75-5, 1-(2-Chloroethyl)piperidine 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole hydrochloride 2439-68-1, 5-Benzyloxy-1-methylindole 2941-62-0, 6-Amino-2methylbenzothiazole 2955-88-6, 1-(2-Hydroxyethyl)pyrrolidine 3040-44-6, 1-(2-Hydroxyethyl)piperidine 3132-64-7, Epibromohydrin 3179-63-3, 3-(N,N-Dimethylamino)propanol 3273-14-1, 2-(1H-1,2,4-Triazol-1-yl)ethanol 3445-11-2, 1-(2-Hydroxyethyl)-2-pyrrolidinone 3512-75-2, 4-Chloro-2,6-dimethylpyridine 3598-13-8, 4-Chlorophenoxyacetonitrile 3647-69-6, 4-(2-Chloroethyl) morpholine hydrochloride 3680-02-2, Methyl vinyl sulfone 4076-31-7, 2-[2-(4-Methylpiperazin-1-yl)ethoxy]ethanol 4572-03-6, 1-(3-Aminopropyl)-4-methylpiperazine 4769-96-4, 6-Nitroindole 4790-04-9, 5-Benzyloxy-6-methoxyindole 4792-58-9, Ethyl 5-methoxyindole-2-carboxylate 4897-50-1, 4-Piperidinopiperidine 5050-41-9, 1-(2-Chloroethyl)pyrrolidine 5192-03-0, 5-Aminoindole 5344-27-4, 4-(2-Hydroxyethyl)pyridine 5653-40-7, 4,5-6293-56-7, 3-(2-Hydroxyethyl)pyridine Dimethoxyanthranilic acid 6320-42-9, 7-Hydroxy-2-methylchromone 6482-24-2, 2-Bromoethyl methyl 6967-12-0, 6-Aminoindazole 7154-73-6, 1-(2-7384-07-8, 3-Hydroxycarbazole Aminoethyl) pyrrolidine 7570-47-0, 7570-49-2, 5-Amino-2-methylindole 7583-53-1, 2-Methyl-5-nitroindole (1-Methylpiperidin-3-yl)methanol 10344-42-0, 4-Bromo-3,6-dichloropyridazine 14268-66-7, 3,4-(Methylenedioxy)aniline dichloropyridazine 7-Hydroxy-4-methylquinoline 15965-54-5, 2-Chloro-5-methoxybenzimidazole 16499-57-3, 7-Fluoro-3,4-dihydroquinazolin-4-one 16712-58-6, 5-Amino-2,3-dimethylindole 17342-08-4 18190-44-8, 1-(2-Hydroxyethyl)pyrrolidin-2,5-dione 18721-61-4, 3-(Ethylthio)propanol 18994-70-2, 2-(1-Methylimidazol-2-yl)ethanol 19335-11-6, 5-Aminoindazole 19748-66-4, 3-Pyrrolidinopropan-1-ol 20845-32-3, 4-Hydroxymethyl-1-21598-06-1, 5-Hydroxy-2-indolecarboxylic acid methyl-2-piperidone 22159-27-9, 1-(3-Hydroxypropyl)-2-methylimidazole 23159-07-1, 1-(3-Aminopropyl)pyrrolidine 24332-20-5, 1,1,2-Trimethoxyethane 24425-40-9, 5-Aminoindan 24854-43-1, 4-Methyl-4H-1,2,4-triazole-3-thiol 25137-01-3, (R)-Ethyl nipecotate 25888-06-6, 1,2-Dimethyl-5-26438-50-6, 3,4-Dihydro-4-methyl-2H-1,4-benzoxazin-6-ol hydroxyindole 29242-84-0, 2-Chloro-4-methoxyaniline 34381-71-0, (S)-2-(Hydroxymethyl)-1-methylpyrrolidine 39743-20-9, 3-(Pyrrolidin-1-yl)propyl chloride 42055-15-2, 3-(N-Methylamino)propan-1-ol 51086-19-2 53412-38-7, 6-Hydroxy-3,4-dihydro-2H-1,4-benzoxazin-3-one 54584-22-4, 6-Hydroxy-2-methylindole 57561-39-4 58885-58-8, 3-(N-tert-Butoxycarbonylamino)propanol 60547-98-0, 2-Amino-4-benzyloxy-5-methoxybenzamide 62012-15-1, 1-(3-Hydroxypropyl)pyrrolidin-2-one 66673-40-3, (R)-5-Hydroxymethyl-2-pyrrolidinone 68867-14-1, 5-Hydroxy-2-methylbenzothiazole 72107-05-2, 2,2,4-Trimethyl-1,2-dihydroquinolin-6-ol 72365-58-3, 2,4-Dimethyl-7-hydroxyquinoline 86450-38-6, 4-(2-Hydroxyethoxy)pyridine 98549-88-3, 5-Hydroxy-1Hpyrrolo[2,3-b]pyridine 104863-67-4, N-Methyl-N-methoxytrifluoroacetamide 109736-44-9, 2-[N-Methyl-N-(4-pyridyl)amino]ethanol 116141-68-5, 5,5-Dimethyl-1,3-dioxane-2-ethanol 129822-42-0, (4-Methoxy-2methylphenyl)carbamic acid 1,1-dimethylethyl ester 151782-79-5,

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    7-Hydroxy-4-trifluoromethylquinoline
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                                           288383-51-7, 4-Chloro-6-methoxy-7-(1-
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                                          288386-62-9, 4-Chloro-6-methoxy-7-
     [3-(1H-1,2,4-triazol-1-yl)propoxy]quinazoline 288386-86-7,
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                                                       288387-63-3,
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        (starting material; preparation of quinazolines as angiogenesis inhibitors
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IT
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    4-(4-Chloro-2-fluorophenoxy)-6-methoxy-7-[(1-methylpiperidin-3-
    yl) methoxy] quinazoline 288383-31-3P, 4-(4-Chloro-2-
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    butoxycarbonyl) vinyl] quinazoline 288383-80-2P,
    7-(2-Carboxyvinyl)-4-(4-chloro-2-fluorophenoxy)-6-methoxyquinazoline
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    7-(3-Aminopropoxy)-4-(4-bromo-2-fluorophenoxy)-6-methoxyquinazoline
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    methylsulfonylamino)propoxy]quinazoline 288384-47-4P,
    4-(4-Bromo-2-fluorophenoxy)-6-methoxy-7-[3-(N-methyl-N-
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    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
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        (intermediate; preparation of quinazolines as angiogenesis inhibitors by
        cyclization of 2-aminobenzamides and subsequent derivatization)
RN
     193001-79-5 CAPLUS
     7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX
CN
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RN '

193001-80-8 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-CN (9CI) (CA INDEX NAME)

RN

263400-84-6 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[(1-methyl-3-piperidinyl)methoxy]- (9CI) (CA INDEX NAME) CN

RN

288383-31-3 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-7-[3-(1,1-dioxido-4-CNthiomorpholinyl)propoxy]-6-methoxy- (9CI) (CA INDEX NAME)

## Troung 10/088,854

RN 288383-78-8 CAPLUS

CN Methanesulfonic acid, trifluoro-, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-quinazolinyl ester (9CI) (CA INDEX NAME)

RN 288383-79-9 CAPLUS

CN 2-Propenoic acid, 3-[4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 288383-80-2 CAPLUS

CN 2-Propenoic acid, 3-[4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]- (9CI) (CA INDEX NAME)

RN 288384-44-1 CAPLUS

CN Carbamic acid, [3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 288384-45-2 CAPLUS

CN 1-Propanamine, 3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-quinazolinyl]oxy]- (9CI) (CA INDEX NAME)

RN 288384-46-3 CAPLUS

CN Methanesulfonamide, N-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-

quinazolinyl]oxy]propyl] - (9CI) (CA INDEX NAME)

$$Me - S - NH - (CH2)3 - O N N N$$

$$MeO \qquad MeO \qquad F$$

$$Br$$

288384-47-4 CAPLUS RN

Methanesulfonamide, N-[3-[[4-(4-bromo-2-fluorophenoxy)-6-methoxy-7-CN quinazolinyl]oxy]propyl]-N-methyl- (9CI) (CA INDEX NAME)

RN

288384-74-7 CAPLUS
Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[3-(4-methyl-1-CNpiperazinyl)propoxy] - (9CI) (CA INDEX NAME)

RN 288384-73-6 CAPLUS
CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 193001-79-5 CMF C15 H10 Cl F N2 O3

CM

CRN 76-05-1 CMF C2 H F3 O2

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:513673 CAPLUS

DOCUMENT NUMBER: 133:135235

Preparation and anti-tumor, anti-atherosclerosis, TITLE: anti-psoriasis, anti-diabetes, and anti-arthritis

activities of quinolines and quinazolines

Kubo, Kazuo; Fujiwara, Yasunari; Isoe, Toshiyuki INVENTOR(S):

Kirin Beer Kabushiki Kaisha, Japan PATENT ASSIGNEE(S):

PCT Int. Appl., 208 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PRIORITY APPLN. INFO.:
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OTHER SOURCE(S): MARPAT 133:135235

Title compds. [I; X and Z represent each CH or N; R1-3 represent each H, optionally substituted alkoxy, etc.; R4 represents H; R5-8 represent each H, halogeno, alkyl, alkoxy, alkylthio, nitro or amino, provided that all of R5-8 do not represent H simultaneously; R9 and R10 represent each H, alkyl or alkylcarbonyl; and R11 represents alkyl, alkenyl, alkynyl or aralkyl], pharmaceutically acceptable salts and solvates, and medicinal compns. containing the same are prepared and tested having antitumor activity and causing no morphol. change in cells. Thus, the title compound I (X = CH; Z = CH; R1, R4, R5, R7-R10 each an H; R11 = 3,5-F2C6H3) was prepared and tested.

Ι

IC ICM C07D215-22

ICS C07D239-96; C07D401-12; C07D403-12; A61P035-00; A61K031-47; A61K031-4725; A61K031-496; A61K031-517; A61K031-5355

CC 27-17 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 28, 63

190728-01-9P 286369-52-6P 286369-56-0P IT 190727-98-1P 286369-55-9P 286369-59-3P 286369-58-2P 286369-60-6P 286369-61-7P 286369-62-8P 286369-65-1P 286369-67-3P 286369-69-5P 286369-70-8P 286369-64-0P 286369-75-3P 286369-76-4P 286369-73-1P 286369-74-2P 286369-71-9P 286369-82-2P 286369-77-5P 286369-78-6P 286369-79-7P 286369-81-1P 286369-87-7P 286369-84-4P 286369-85-5P 286369-86-6P 286369-83-3P 286369-88-8P 286369-89-9P 286369-90-2P 286369-91-3P 286369-92-4P

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RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
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86-84-0, 1-Naphthyl isocyanate 95-69-2, 4-Chloro-2-methylaniline
100-39-0, Benzyl bromide 100-52-7, Benzaldehyde, reactions
3-Piperidinopropanol
                      105-36-2, Bromoacetic acid ethyl ester
                                                                 106-93-4.
1,2-Dibromoethane
                   107-10-8, n-Propylamine, reactions
                                                          108-90-7.
Chlorobenzene, reactions 109-01-3, 1-Methylpiperazine
                                                           109-64-8,
1,3-Dibromopropane
                    109-70-6, 1-Bromo-3-chloropropane
                                                          109-83-1,
2-(Methylamino)ethanol 110-52-1, 1,4-Dibromobutane 110-68-9,
N-Methylbutylamine
                    111-24-0, Pentamethylene bromide
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Diethanolamine, reactions
                            142-84-7, Dipropylamine
                                                       288-32-4, Imidazole,
           311-28-4, Tetra-n-butyl ammonium iodide
                                                       367-25-9,
reactions
2,4-Difluoroaniline 394-41-2, 3-Fluoro-4-nitrophenol
                                                          437-83-2
                          rlaniline 460-08-2, 2-Fluoroethylamine
540-51-2, Ethylene bromohydrin 598-74
603-35-0, Triphenylphosphine, reactions
452-71-1, 4-Fluoro-2-methylaniline
hydrochloride
                498-02-2
1,2-Dimethylpropylamine
610-81-1, 4-Amino-3-nitrophenol 614-68-6 627-18-9, 3-Bromo-1-propanol
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627-35-0, N-Methylpropylamine
932-96-7, 4-Chloro-N-methylaniline
                                    1072-97-5, 2-Amino-5-bromopyridine
1072-98-6, 2-Amino-5-chloropyridine
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1603-41-4, 2-Amino-5-picoline
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hydrochloride
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Diethylazodicarboxylate
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3096-71-7, 4-Amino-2,5-dimethylphenol 3647-69-6, N-(2-
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4556-23-4, 4-Mercaptopyridine 4597-87-9, 2-(Methylamino)pyridine
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IT

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                                                             6702-50-7, Methyl
     dichlorophenol
     3-hydroxy-4-methoxybenzoate 6940-78-9, 1-Bromo-4-chlorobutane
     6959-47-3, 2-(Chloromethyl) pyridine hydrochloride 6959-48-4,
                                          7087-68-5, Diisopropylethylamine
     3-Chloromethylpyridine hydrochloride
                                            13952-84-6, sec-Butylamine
     10017-11-5, Allylamine hydrochloride
     15430-52-1, Propargylamine hydrochloride 18686-81-2
                                                            20193-20-8,
                        28020-37-3, 3-Amino-2,6-dimethoxypyridine
    N-Ethylpropylamine
     35654-56-9, 4-Chloro-6,7-dimethoxyquinoline 42753-71-9,
     6-Amino-3-bromo-2-methylpyridine 52671-64-4
                                                     54512-75-3,
     1-Bromo-5-chloropentane 59025-55-7, 2,4-Difluorophenyl isocyanate
     61032-42-6, Methyl 2-amino-4-(benzyloxy)-5-methoxybenzoate 72235-52-0,
     2,4-Difluorobenzylamine 79025-27-7 94276-04-7 96855-27-5
                   263400-92-6
                                 286371-70-8
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                  286372-03-0
                                 286372-05-2 286372-06-3
     286372-01-8
     286372-08-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation and antitumor activity of quinolines and quinazolines)
     13790-39-1P, 4-Chloro-6,7-dimethoxyquinazoline 13794-72-4P,
IT
    6,7-Dimethoxy-4-quinazolone 53710-78-4P 61032-41-5P 73828-78-1 75665-73-5P 123330-55-2P 162364-72-9P, 7-(Benzyloxy)-4-chloro-6-
     methoxyquinazoline
                                        179688-01-8P
                                                        205448-29-9P
                         164161-49-3P
                                 286371-45-7P
                                                  286371-46-8P
     205448-31-3P 286371-44-6P
     286371-48-0P
                   286371-49-1P
                                   286371-50-4P
                                                  286371-51-5P
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     286371-58-2P
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                                                  286369-63-9P
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                                                                 286369-66-2P
TΤ
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     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
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        (preparation and antitumor activity of quinolines and quinazolines)
     286370-74-9P 286370-75-0P 286370-76-1P
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     286371-38-8P 286371-39-9P 286371-40-2P
     286371-41-3P 286371-42-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation and antitumor activity of quinolines and quinazolines)
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RN 286370-74-9 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-75-0 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[2-(4-morpholinyl)ethoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-76-1 CAPLUS

CN Urea, N-[2-chloro-4-[[7-(3-hydroxypropoxy)-6-methoxy-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-77-2 CAPLUS
CN Urea, N-[2-chloro-4-[[7-(2-hydroxyethoxy)-6-methoxy-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-78-3 CAPLUS
CN Urea, N-[2-chloro-4-[[6-methoxy-7-(4-pyridinylmethoxy)-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-79-4 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[[5-(4-morpholinyl)pentyl]oxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-80-7 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[[5-(1H-1,2,3-triazol-1-yl)pentyl]oxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-81-8 CAPLUS

CN Urea, N'-[2-chloro-4-[[6-methoxy-7-(4-pyridinylmethoxy)-4-quinazolinyl]oxy]phenyl]-N,N-diethyl-(9CI) (CA INDEX NAME)

RN 286370-82-9 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[4-(4-morpholinyl)butoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-86-3 CAPLUS

CN Urea, N'-[2-chloro-4-[[6-methoxy-7-[2-(1H-1,2,3-triazol-1-yl)ethoxy]-4-quinazolinyl]oxy]phenyl]-N,N-diethyl- (9CI) (CA INDEX NAME)

RN 286370-87-4 CAPLUS

CN Carbamic acid, diethyl-, 3-[[4-[3-chloro-4-[[(diethylamino)carbonyl]amino] phenoxy]-6-methoxy-7-quinazolinyl]oxy]propyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ Et_2N-C-O-(CH_2)_3-O \\ MeO \end{array}$$

RN 286370-88-5 CAPLUS
CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(4-pyridinylthio)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-89-6 CAPLUS
CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-[(1-methyl-1H-tetrazol-5-yl)thio]propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-91-0 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(1-piperidinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-93-2 CAPLUS

CN Urea, N-[2-chloro-4-[[7-methoxy-6-[2-(4-methyl-1-piperazinyl)ethoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-94-3 CAPLUS

CN Urea, N-[2-chloro-4-[[7-methoxy-6-[3-(4-methyl-1-piperazinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-95-4 CAPLUS

CN Urea, N-[2-chloro-4-[[7-methoxy-6-(2-pyridinylmethoxy)-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-96-5 CAPLUS

CN Urea, N-[2-chloro-4-[[7-methoxy-6-[3-(4-morpholinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-97-6 CAPLUS

CN Urea, N-[2-chloro-4-[[6-[3-[(2-hydroxyethyl)methylamino]propoxy]-7-methoxy-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \\ \text{MeO} \\ \text{HO-CH}_2\text{-CH}_2\text{-N-(CH}_2)_3\text{-O} \\ \\ \text{C1} \\ \text{n-PrNH-C-NH} \\ \\ \text{O} \\ \end{array}$$

RN 286371-18-4 CAPLUS
CN Urea, N-[2-chloro-4-[[6-methoxy-7-(4-pyridinylmethoxy)-4-quinazolinyl]oxy]phenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

# PAGE 1-A

RN 286371-19-5 CAPLUS CN Urea, N-[2-chloro-4-[[6-methoxy-7-[2-(4-morpholinyl)ethoxy]-4quinazolinyl]oxy]phenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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| F

RN 286371-20-8 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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| F

RN 286371-21-9 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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RN 286371-22-0 CAPLUS

CN Urea, N-[2-chloro-4-[[7-[3-[(2-hydroxyethyl)methylamino]propoxy]-6-methoxy-4-quinazolinyl]oxy]phenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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RN 286371-35-5 CAPLUS

CN Urea, N'-[2-chloro-4-[[6-methoxy-7-[2-(4-morpholinyl)ethoxy]-4-quinazolinyl]oxy]phenyl]-N,N-dimethyl-(9CI) (CA INDEX NAME)

RN 286371-36-6 CAPLUS

CN Urea, N'-[2-chloro-4-[[6-methoxy-7-[4-(4-morpholinyl)butoxy]-4-quinazolinyl]oxy]phenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 286371-37-7 CAPLUS

CN Urea, N'-[2-chloro-4-[[6-methoxy-7-(4-pyridinylmethoxy)-4-quinazolinyl]oxy]phenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN

286371-38-8 CAPLUS
Acetic acid, [[4-[3-chloro-4-[[(dimethylamino)carbonyl]amino]phenoxy]-6-CNmethoxy-7-quinazolinyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ MeO-C-CH_2-O \\ MeO \end{array}$$

286371-39-9 CAPLUS RN

Urea, N'-[2-chloro-4-[[6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]-4-CN quinazolinyl]oxy]phenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN 286371-40-2 CAPLUS

CN Urea, N'-[2-chloro-4-[[7-[3-[(2-hydroxyethyl)methylamino]propoxy]-6-methoxy-4-quinazolinyl]oxy]phenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{HO-CH}_2\text{-CH}_2\text{-N-(CH}_2)_3\text{-O} \\ \text{MeO} \\ \end{array}$$

RN 286371-41-3 CAPLUS

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(1-piperidinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-methyl- (9CI) (CA INDEX NAME)

RN 286371-42-4 CAPLUS
CN Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(1-piperidinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-ethyl- (9CI) (CA INDEX NAME)

RN 286371-82-2 CAPLUS

CN Urea, N-[2-chloro-4-[(6-hydroxy-7-methoxy-4-quinazolinyl)oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-84-4 CAPLUS

CN Urea, N-[2-chloro-4-[(7-methoxy-6-propoxy-4-quinazolinyl)oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-91-3 CAPLUS
CN Urea, N-[2-chloro-4-[(7-hydroxy-6-methoxy-4-quinazolinyl)oxy]phenyl]-N'(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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RN 286371-93-5 CAPLUS
CN Urea, N-[4-[[7-(3-bromopropoxy)-6-methoxy-4-quinazolinyl]oxy]-2-

chlorophenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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CN Urea, N-[4-[(7-hydroxy-6-methoxy-4-quinazolinyl)oxy]-2-methoxyphenyl]-N'-propyl- (9CI) (CA INDEX NAME)

Page 179

RN 286371-98-0 CAPLUS

CN Urea, N-(2,4-difluorophenyl)-N'-[4-[(7-hydroxy-6-methoxy-4-quinazolinyl)oxy]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

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RN 286372-06-3 CAPLUS

CN Urea, N'-[2-chloro-4-[(7-hydroxy-6-methoxy-4-quinazolinyl)oxy]phenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

RN286372-08-5 CAPLUS

Urea, N-[2-chloro-4-[(7-hydroxy-6-methoxy-4-quinazolinyl)oxy]phenyl]-N'-CNmethyl- (9CI) (CA INDEX NAME)

IT 286371-66-2P 286371-67-3P 286371-68-4P 286371-76-4P 286371-77-5P 286371-78-6P 286371-80-0P 286371-81-1P 286371-83-3P 286371-92-4P 286371-97-9P 286371-99-1P 286372-07-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and antitumor activity of quinolines and quinazolines)

RN

286371-66-2 CAPLUS
Benzenamine, 2-chloro-4-[[6-methoxy-7-(phenylmethoxy)-4-quinazolinyl]oxy]-CN(CA INDEX NAME) (9CI)

286371-67-3 CAPLUS RNCN

Urea, N-[2-chloro-4-[[6-methoxy-7-(phenylmethoxy)-4quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

286371-68-4 CAPLUS RN

Urea, N-[2-chloro-4-[(7-hydroxy-6-methoxy-4-quinazolinyl)oxy]phenyl]-N'-CNpropyl- (9CI) (CA INDEX NAME)

RN 286371-76-4 CAPLUS

CN Urea, N-[4-[[7-(3-bromopropoxy)-6-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-77-5 CAPLUS

CN Urea, N-[4-[[7-(2-bromoethoxy)-6-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-78-6 CAPLUS

CN Urea, N-[4-[[7-[(5-bromopentyl)oxy]-6-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-80-0 CAPLUS

CN Urea, N-[4-[[7-(4-bromobutoxy)-6-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-81-1 CAPLUS

CN Urea, N-[4-[[6-(2-bromoethoxy)-7-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-propyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{MeO} & \text{N} \\ \text{BrCH}_2 - \text{CH}_2 - \text{O} & \text{O} \\ \\ \text{Cl} & \\ \text{n-PrNH-C-NH} \\ \\ \text{O} \end{array}$$

RN 286371-83-3 CAPLUS

CN Urea, N-[4-[[6-(3-bromopropoxy)-7-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-92-4 CAPLUS

CN Urea, N-[4-[[7-(2-bromoethoxy)-6-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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RN 286371-97-9 CAPLUS

CN Urea, N-[4-[[7-(3-bromopropoxy)-6-methoxy-4-quinazolinyl]oxy]-2-methoxyphenyl]-N'-propyl- (9CI) (CA INDEX NAME)

F

RN 286371-99-1 CAPLUS

CN Urea, N-[4-[[7-(3-bromopropoxy)-6-methoxy-4-quinazolinyl]oxy]-2-

methoxyphenyl]-N'-(2,4-difluorophenyl)- (9CI) (CA INDEX NAME)

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RN 286372-07-4 CAPLUS

Urea, N'-[4-[[7-(3-bromopropoxy)-6-methoxy-4-quinazolinyl]oxy]-2-chlorophenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

CN

286370-83-0P 286370-84-1P 286370-85-2P IT

286371-28-6P 286371-29-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and antitumor activity of quinolines and quinazolines)

286370-83-0 CAPLUS RN

CN Urea, N-[2-chloro-4-[[6-methoxy-7-[2-(4-methyl-1-piperazinyl)ethoxy]-4quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286370-84-1 CAPLUS

Urea, N-[2-chloro-4-[[7-[2-[(2-hydroxyethyl)methylamino]ethoxy]-6-methoxy-CN 4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ \text{HO-CH}_2\text{-CH}_2\text{-N-CH}_2\text{-CH}_2\text{-O} & \\ \text{MeO} & \\ \\ \text{N} & \\ \text{N} &$$

286370-85-2 CAPLUS RN

Urea, N-[2-chloro-4-[[6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]-4-CN quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-28-6 CAPLUS

CN Urea, N-[2-methoxy-4-[[6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-quinazolinyl]oxy]phenyl]-N'-propyl- (9CI) (CA INDEX NAME)

RN 286371-29-7 CAPLUS

CN Urea, N-(2,4-difluorophenyl)-N'-[2-methoxy-4-[[6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-quinazolinyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

#### PAGE 1-A

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REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 20

2000:241203 CAPLUS

DOCUMENT NUMBER:

132:265207

TITLE:

Preparation of 4-anilinoquinazolines and

4-anilinoquinolines as inhibitors of cytokine mediated

disease

INVENTOR(S):

Cumming, John Graham Zeneca Limited, UK

PATENT ASSIGNEE(S): SOURCE:

Zeneca Limited, UK PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO.		KII	<b>VD</b> 1	DATE			A	PPLI	CATI	ои ис	ο.	DATE			
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WO 2000020402		2	A1 2000			0413	WO 1999				9-GB3220			19990927		
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OTHER SOURCE(S):

MARPAT 132:265207

GΙ

$$\begin{bmatrix} \mathbb{R}^{1} \end{bmatrix}_{m} \begin{bmatrix} \mathbb{R}^{2} \\ \mathbb{R}^{2} \\ \mathbb{R}^{3} \\ \mathbb{R}^{5} \end{bmatrix}_{H} \begin{bmatrix} \mathbb{R}^{4} \\ \mathbb{R}^{4} \\ \mathbb{R}^{5} \end{bmatrix}_{1}$$

.

AB The title compds. [I; G = N, CH; R1 = OH, halo, CF3, etc.; R2, R3 = H,

II

halo, alkyl, etc.; R4 = H, OH, alkyl, etc.; R5 = H, halo, CF3; m = 1-3; q = 0-4] and their pharmaceutically acceptable salts or in vivo cleavable esters, useful in the treatment of diseases or medical conditions mediated by cytokines, were prepared and formulated. E.g., a multi-step synthesis of II which showed IC50 of 0.2  $\mu$ M against p38 $\alpha$  kinase and IC50 of 5.2  $\mu$ M against TNF $\alpha$  production, was given.

- IC ICM C07D239-94
  - ICS C07D401-12; A61K031-517
- CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 63

7357-67-7P, 3-Morpholinopropyl chloride IT 1484-36-2P 27483-92-7P 74731-63-8P, 1H-1,2,3-Triazole-1-ethanol 13794-72-4P 75561-94-3P 117500-61-5P, 3-Dimethylaminobenzoyl chloride hydrochloride 153437-09-3P 179688-01-8P 144205-37-8P 153437-08-2P 179688-54-1P 187722-18-5P 193001-79-5P 193001-80-8P 193002-24-3P 215309-00-5P 196194-62-4P 196195-12-7P 196195-13-8P 193002-25-4P 221875-99-6P 221875-96-3P 221875-97-4P 221875-98-5P 221876-00-2P 221876-01-3P 221876-05-7P 221876-06-8P 221876-07-9P 221876-02-4P 221876-08-0P 250681-52-8P 250681-53-9P 250681-58-4P 250681-59-5P 250683-88-6P 250683-90-0P 250683-91-1P 250683-92-2P 258503-85-4P 258503-86-5P 263400-54-0P 263400-55-1P 263400-56-2P 263400-57-3P 263400-58-4P 263400-59-5P 263400-60-8P 263400-61-9P 263400-62-0P 263400-65-3P 263400-66-4P 263400-63-1P 263400-64-2P 263400-68-6P **263400-69-7P** 263400-67-5P 263400-70-0P 263400-71-1P 263400-72-2P 263400-73-3P 263400-76-6P 263400-77-7P 263400-75-5P 263400-74-4P 263400-79-9P 263400-80-2P 263400-81-3P 263400-78-8P 263400-83-5P **263400-84-6P** 263400-82-4P 263400-85-7P 263400-86-8P 263400-87-9P 263400-88-0P 263400-89-1P 263400-90-4P 263400-91-5P 263400-92-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 4-anilinoquinazolines and 4-anilinoquinolines as inhibitors of cytokine mediated disease)

- IT 193001-79-5P 193001-80-8P 263400-67-5P 263400-69-7P 263400-70-0P 263400-77-7P 263400-80-2P 263400-81-3P 263400-84-6P
  - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 4-anilinoquinazolines and 4-anilinoquinolines as inhibitors of cytokine mediated disease)

- RN 193001-79-5 CAPLUS
- CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX NAME)

RN 193001-80-8 CAPLUS

CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-(9CI) (CA INDEX NAME)

RN 263400-67-5 CAPLUS

CN Quinazoline, 6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-(pentafluorophenoxy)-(9CI) (CA INDEX NAME)

N— (CH<sub>2</sub>)<sub>3</sub>-0 N N N N 
$$F$$
  $F$   $F$ 

RN 263400-69-7 CAPLUS

CN Quinazoline, 6-methoxy-4-(pentafluorophenoxy)-7-(phenylmethoxy)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{Ph-CH_2-O} & \operatorname{N} & \operatorname{N} \\ \operatorname{MeO} & \operatorname{F} & \operatorname{F} \\ \end{array}$$

RN 263400-70-0 CAPLUS

CN 7-Quinazolinol, 6-methoxy-4-(pentafluorophenoxy)- (9CI) (CA INDEX NAME)

RN 263400-77-7 CAPLUS

CN Quinazoline, 6-methoxy-4-(pentafluorophenoxy)-7-[3-(3-pyridinyl)propoxy]-(9CI) (CA INDEX NAME)

RN 263400-80-2 CAPLUS

CN Quinazoline, 6-methoxy-7-[2-(4-morpholinyl)ethoxy]-4-(pentafluorophenoxy)-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

263400-81-3 CAPLUS RN

Quinazoline, 6-methoxy-4-(pentafluorophenoxy)-7-[2-(1-pyrrolidinyl)ethoxy]-CN (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

263400-84-6 CAPLUS RN

Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-[(1-methyl-3-CN piperidinyl)methoxy] - (9CI) (CA INDEX NAME)

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 1 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1997:675952 CAPLUS

DOCUMENT NUMBER:

127:262698

TITLE:

INVENTOR(S):

Preparation of quinazolines as VEGF inhibitors Thomas, Andrew Peter; Johnstone, Craig; Hennequin,

Laurent François Andre

PATENT ASSIGNEE(S):

Zeneca Ltd., UK; Zeneca Pharma S.A.; Thomas, Andrew Peter; Johnstone, Craig; Hennequin, Laurent Francois

Andre

SOURCE:

PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO. DATE
			WO 1997-GB365 19970210
			BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK,
			IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
			MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
			TM, TR, TT, UA, UG, US, UZ, VN, YU, AM,
	BY, KG, KZ		
			AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
			SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
	NE, SN, TD		
	ĀA	•	CA 1997-2242425 19970210
AU 9717290	A1	19970902	AU 1997-17290 19970210
AU 719434	B2	20000511	
EP 880508	A1	19981202	EP 1997-904512 19970210
EP 880508	B1	20030416	
R: AT,	BE, CH, DE	, DK, ES,	FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE,	SI, LT, LV		
CN 1211239		19990317	CN 1997-192221 19970210
CN 1125817	В	20031029	
BR 9707495	A A	19990727	BR 1997-7495 19970210
NZ 330868	A	20000128	NZ 1997-330868 19970210
JP 20005047	/14 T2	20000418	JP 1997-529078 19970210
IL 125686	A1		IL 1997-125686 19970210
			RU 1998-117074 19970210
CZ 291386	B6 '		CZ 1998-2535 19970210
AT 237596	E		AT 1997-904512 19970210
PT 880508	T	20030731	PT 1997-97904512 19970210
ZA 9/01180	A	199/0813	ZA 1997-1180 19970212
			NO 1998-3687 19980812
US 6184225		20010206	US 1998-125271 19980813 EP 1996-400293 A 19960213
PRIORITY APPLN.	INFO.:		EP 1996-400293 A 19960213 EP 1996-401756 A 19960808
			EP 1996-401736 A 19960006 EP 1996-402764 A 19961217
			WO 1997-GB365 W 19970210
OTHER SOURCE(S):	. MA	RPAT 127·2	
GI		20/.0	

searched by Alex Waclawiw

$$\begin{bmatrix} R^{2} & Z \\ R^{2} & X \end{bmatrix}_{m}$$

$$R^{4}-X^{1}$$

AB The title compds. [I; Z = O, NH, S; m = 1-5; R1 = H, OH, halo, etc.; R2 = H, OH, halo, etc.; R3 = OH, halo, C1-3 alkyl, etc.; X1 = O, CH2, S, etc.; R4 = H, C1-5 alkyl, C1-5 hydroxyalkyl, etc.] and their salts which inhibit the effects of VEGF, a property of value in the treatment of a number of disease states including cancer and rheumatoid arthritis, were prepared and formulated. Thus, reaction of 4-chloro-6,7-dimethoxyquinazoline with 4-bromo-2-fluoro-5-hydroxyaniline in the presence of isopropanolic hydrogen chloride in 2-butanol afforded 87% quinazoline II.HC1. Compds. I are effective at 1-50 mg/kg.

IC C07D239-94; A61K031-505; C07D239-88; C07D239-93; C07D413-12; A61K031-535; C07D403-12; C07D401-12; C07D417-12; A61K031-54

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) Section cross-reference(s): 1, 63

196193-86-9P 196193-87-0P 196193-88-1P IT 196193-85-8P 196193-93-8P 196193-91-6P 196193-92-7P 196193-89-2P 196193-90-5P 196193-96-1P 196193-97-2P 196193-98-3P 196193-94-9P 196193-95-0P 196194-01-1P 196194-03-3P 196194-04-4P 196193-99-4P 196194-00-0P 196194-07-7P 196194-09-9P 196194-05-5P 196194-06-6P 196194-08-8P 196194-10-2P 196194-11-3P 196194-12-4P 196194-13-5P 196194-14-6P 196194-17-9P 196194-18-0P 196194-19-1P 196194-15-7P 196194-16-8P 196194-20-4P 196194-21-5P 196194-22-6P 196194-23-7P 196194-24-8P 196194-29-3P 196194-26-0P 196194-27-1P 196194-28-2P 196194-25-9P 196194-33-9P 196194-34-0P 196194-35-1P 196194-31-7P 196194-30-6P 196194-37-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinazolines as VEGF inhibitors)

4497-04-5P, 4-Morpholinepropanoic acid 13790-39-1P TT 496-73-1P 16499-57**-**3P 31601-41-9P 40248-84-8P 86587**-**56-6P 13794-72-4P 113512-71-3P 122455-84-9P 122455-85-0P 122455-86-1P 154314-62-2P 179688-01-8P 179688-02-9P 192999-96-5P 193001-44-4P 193001-52-4P 193001-56-8P 193001-79-5P 193001-80-8P 193001-55-7P

193002-13-0P 193002-14-1P 193002-16-3P 193002-21-0P 193002-22-1P 196194-38-4P 196194-39-5P 196194-40-8P 196194-41-9P 196194-42-0P 196194-43-1P 196194-44-2P 196194-45-3P 196194-46-4P 196194-47-5P 196194-48-6P 196194-49-7P 196194-50-0P 196194-52-2P 196194-53-3P 196194-54-4P 196194-55-5P 196194-56-6P 196194-57-7P 196194-58-8P 196194-60-2P 196194-61-3P 196194-59-9P 196194-62-4P 196194-63-5P 196194-67-9P 196194-64-6P 196194-66-8P 196194-68-0P 196194-69-1P 196194-71-5P 196194-72-6P 196194-74-8P 196194-70-4P 196194-75-9P 196194-78-2P 196194-79-3P 196194-76-0P 196194-80-6P 196194-81-7P 196194-82-8P 196194-83-9P 196194-84-0P 196194-86-2P 196194-88-4P 196194-90-8P 196194-93-1P 196194-94-2P 196194-95-3P 196194-96-4P 196194-97-5P 196194-98-6P 196194-99-7P 196195-00-3P 196195-01-4P 196195-03-6P 196195-04-7P 196195-05-8P 196195-06-9P 196195-07-0P 196195-08-1P 196195-09-2P 196195-10-5P 196195-11-6P 196195-12-7P 196195-13-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of quinazolines as VEGF inhibitors)

#### IT 196193-88-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinazolines as VEGF inhibitors)

RN 196193-88-1 CAPLUS

CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(2-methoxyethoxy)-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-CH}_2\text{-CH}_2\text{-O} \\ \text{MeO} \end{array}$$

# IT 193001-79-5P 193001-80-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of quinazolines as VEGF inhibitors)

RN 193001-79-5 CAPLUS

CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX NAME)

RN 193001-80-8 CAPLUS

CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-(9CI) (CA INDEX NAME)

L12 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1997:502972 CAPLUS

DOCUMENT NUMBER:

127:135808

TITLE:

Preparation and antiangiogenic and/or vascular permeability reducing effect of quinazoline

derivatives

INVENTOR(S):

Lohmann, Jean-Jacques Marcel; Hennequin, Laurent

Francois Andre; Thomas, Andrew Peter

PATENT ASSIGNEE(S):

Zeneca Limited, UK; Zeneca-Pharma S.A.; Lohmann,

Jean-Jacques Marcel; Hennequin, Laurent Francois

Andre; Thomas, Andrew Peter

SOURCE:

PCT Int. Appl., 162 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
WO 9722596 A1 19970626 WO 1996-GB3075 19961213

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,

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LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
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             MR, NE, SN, TD, TG
     AU 9711061
                       A1
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     AU 712370
                        B2
                             19991104
     EP 873319
                        A1
                             19981028
                                             EP 1996-941787
                                                               19961213
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                             20010725
                       В1
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             IE, SI, LT, LV, FI, RO
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     CN 1133625
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                                             CZ 1998-1882
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                                             RU 1998-113300
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                       Α
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                                             ZA 1996-10597
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                                             NO 1998-2784
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                                                               20010611
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     GR 3036954
PRIORITY APPLN. INFO.:
                                          EP 1995-402846
                                                               19951218
                                                           Α
                                          EP 1996-402190
                                                              19961015
                                                           Α
                                          EP 1996-941787
                                                              19961213
                                                           Α
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                                                           W
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                                          US 1996-768887
                                                           A1 19961217
                                          US 1998-203764
                                                           A1 19981202
                                                           A3 20000209
                                          US 2000-500470
```

OTHER SOURCE(S):

MARPAT 127:135808

GΙ

AB Quinazoline derivs. I [Y1 represents -O-, -S-, -CH2-, -SO-, -SO2-, NR5CO-, -CONR6-, -SO2NR7-, -NR8SO2- or -NR9- (wherein R5, R6, R7, R8 and R9 each independently represents hydrogen, alkyl or alkoxyalkyl); R1 represents

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hydrogen, hydroxy, halo, nitro, trifluoromethyl, cyano, alkyl, alkoxy,
alkylthio, amino, alkylamino; R2 represents hydrogen, hydroxy, halo,
alkyl, alkoxy, trifluoromethyl, cyano, amino, nitro; m is an integer from
1 to 5; R3 represents hydroxy, halo, alkyl, alkoxy, alkanoyloxy,
trifluoromethyl, cyano, amino, nitro; R4 represents a group which is or
which contains an optionally substituted pyridone, Ph or aromatic
heterocyclic group] were prepared I inhibit the effects of VEGF (no data),
a property of value in the treatment of a number of disease states including
cancer and rheumatoid arthritis. E.g., heating a mixture of
2-amino-4-benzyloxy-5-methoxybenzamide and Gold's reagent, followed by
NaOAc and HOAc, gave 7-benzyloxy-6-methoxy-3,4-dihydroquinazolin-4-one.
The product was treated with thionyl chloride, then 3-acetoxy-4-
methylaniline, and next hydrogenolyzed to give 4-(3-acetoxy-4-
methylanilino)-7-hydroxy-6-methoxyquinazoline hydrochloride. The last was
reacted with 4-(bromomethyl)pyridine hydrobromide and treated with aqueous
NaOH to give 4-(3-hydroxy-4-methylanilino)-6-methoxy-7-(4-
pyridylmethoxy) quinazoline hydrochloride.
    C07D239-94
     C07D239-88; C07D401-12; C07D403-12; C07D409-12; C07D413-12;
     C07D417-12; A61K031-505
28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
                              192999-70-5P
                                             192999-71-6P
                                                             192999-72-7P
192999-68-1P
               192999-69-2P
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                                                             192999-77-2P
192999-73-8P
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               192999-79-4P
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                                             192999-81-8P
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                                                             192999-92-1P
               192999-94-3P
                              192999-95-4P
                                             192999-96-5P
                                                             192999-97-6P
192999-93-2P
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192999-98-7P
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                                             193000-06-5P
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193000-08-7P
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193000-19-0P
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193000-98-5P
               193000-99-6P
                              193001-00-2P
                                             193001-01-3P
                                                             193001-02-4P
                                                             193001-07-9P
193001-03-5P
               193001-04-6P
                              193001-05-7P
                                             193001-06-8P
                                                             193001-16-0P
193001-08-0P
               193001-09-1P
                              193001-10-4P
                                             193001-14-8P
                                             193001-24-0P
                                                             193001-26-2P
193001-18-2P
               193001-20-6P
                              193001-22-8P
               193001-30-8P
                              193001-32-0P
                                             193001-35-3P
                                                             193001-37-5P
193001-28-4P
193001-38-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
   (preparation and antiangiogenic and/or vascular permeability reducing effect
   of quinazoline derivs.)
3715-99-9P
           3716-08-3P
                          3998-88-7P
                                       3998-90-1P
                                                     4226-37-3P
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CC

IT

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16830-24-3P
                                         17944-59-1P
                                                        19815-17-9P
             7467-35-8P
4760-35-4P
              52541-36-3P
                             53064-92-9P
                                            54198-81-1P,
25514-24-3P
                              54453-93-9P
                                             57561-39-4P
                                                            61995-11-7P
4-(Chloromethyl)pyrimidine
                             79050-83-2P
                                            83004-14-2P
                                                          98609-53-1P
              76632-23-0P
71935-32-5P
                                                               119967-49-6P
               105250-16-6P
                               105596-61-0P
                                               117934-37-9P
100704-10-7P
                                                               128674-45-3P
122455-84-9P
                               122455-86-1P
                                               123148-66-3P
               122455-85-0P
               152815-18-4P
                               161604-55-3P
                                               179688-01-8P
                                                               193001-43-3P
135207-22-6P
                                                               193001-48-8P
               193001-45-5P
                               193001-46-6P
                                               193001-47-7P
193001-44-4P
                                                               193001-53-5P
                               193001-51-3P
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193001-49-9P
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                                               193001-57-9P
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193001-54-6P
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                               193001-62-6P
                                               193001-63-7P
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193001-59-1P
                               193001-67-1P
                                               193001-68-2P
                                                               193001-69-3P
               193001-66-0P
193001-65-9P
                               193001-72-8P
                                               193001-73-9P
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               193001-71-7P
193001-70-6P
                                               193001-78-4P
               193001-76-2P
                               193001-77-3P
193001-75-1P
                                             193001-82-0P
                             193001-81-9P
193001-79-5P 193001-80-8P
                                               193001-86-4P
                                                               193001-87-5P
                               193001-85-3P
               193001-84-2P
193001-83-1P
                               193001-90-0P
                                               193001-91-1P
                                                               193001-92-2P
               193001-89-7P
193001-88-6P
                               193001-99-9P
                                               193002-01-6P
                                                               193002-03-8P
               193001-96-6P
193001-94-4P
                               193002-08-3P
                                               193002-09-4P
                                                               193002-10-7P
193002-05-0P
               193002-07-2P
                                                               193002-15-2P
193002-11-8P
               193002-12-9P
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                                                               193002-20-9P
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                                               193002-19-6P
193002-16-3P
               193002-17-4P
                                                               193002-25-4P
                                               193002-24-3P
                               193002-23-2P
193002-21-0P
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                                                               193002-30-1P
                               193002-28-7P
                                               193002-29-8P
193002-26-5P
               193002-27-6P
                               193002-33-4P
                                               193002-34-5P
                                                               193002-35-6P
193002-31-2P
               193002-32-3P
193002-36-7P
               193002-37-8P
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and antiangiogenic and/or vascular permeability reducing effect of quinazoline derivs.)

#### IT 193000-13-4P 193000-89-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and antiangiogenic and/or vascular permeability reducing effect of quinazoline derivs.)

RN

193000-13-4 CAPLUS Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(4-pyridinylmethoxy)-CN (CA INDEX NAME)

193000-89-4 CAPLUS RN

Phenol, 2-chloro-4-fluoro-5-[[6-methoxy-7-(phenylmethoxy)-4-CN quinazolinyl]oxy] - (9CI) (CA INDEX NAME)

IT 193001-79-5P 193001-80-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and antiangiogenic and/or vascular permeability reducing effect of quinazoline derivs.)

RN 193001-79-5 CAPLUS

CN 7-Quinazolinol, 4-(4-chloro-2-fluorophenoxy)-6-methoxy- (9CI) (CA INDEX NAME)

RN 193001-80-8 CAPLUS

CN Quinazoline, 4-(4-chloro-2-fluorophenoxy)-6-methoxy-7-(phenylmethoxy)-(9CI) (CA INDEX NAME)

L12 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:477952 CAPLUS

DOCUMENT NUMBER: 111:77952

TITLE: Thermal rearrangement of substituted 4-(4-chromanylphenoxy)quinazolines

AUTHOR(S): Samant, S. P.; Dhande, S. K.; Hosagnadi, B. D.

CORPORATE SOURCE: Dep. Chem., Univ. Bombay, Bombay, 400 098, India SOURCE: Indian Journal of Chemistry, Section B: Organic

Chemistry Including Medicinal Chemistry (1988),

27B(12), 1134-5

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 111:77952

GI

$$\begin{array}{c} \text{Me} \\ \text{Me} \\ \text{Me} \\ \text{R} \\ \text{R} \\ \text{I} \\ \text{II} \\ \end{array}$$

AB Thermal Chapman rearrangement on 4-aryloxyquinazoline derivs. substituted by amino and nitro functional group in the aromatic ring is described for the first time. Thus, heating quinazolines I (R = H, NH2, NO2; R1 = Me, Et, Me2CH, Ph, H; R2 = H, MeO) at 325-340°C under N for 1.5 h gave 31-48% quinazolinones II.

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 121996-76-7P 121996-77-8P 121996-78-9P 121996-79-0P 121996-80-3P 121996-81-4P 121996-82-5P **121996-83-6P 121996-84-7P** 121996-85-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and thermal Chapman rearrangement of)

IT 121996-83-6P 121996-84-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and thermal Chapman rearrangement of)

RN 121996-83-6 CAPLUS

CN Benzenamine, 5-(3,4-dihydro-2,2,4-trimethyl-2H-1-benzopyran-4-yl)-2-[(6-methoxy-4-quinazolinyl)oxy]- (9CI) (CA INDEX NAME)

RN

121996-84-7 CAPLUS
Benzenamine, 5-(3,4-dihydro-2,2,4-trimethyl-2H-1-benzopyran-4-yl)-2-[[6-methoxy-2-(1-methylethyl)-4-quinazolinyl]oxy]- (9CI) (CA INDEX NAME) CN

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